

The University of Chicago

VERGIL AND ARATUS
A STUDY IN THE ART OF TRANSLATION

A DISSERTATION SUBMITTED TO THE
FACULTY OF THE DIVISION OF THE
HUMANITIES IN CANDIDACY FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF LATIN LANGUAGE AND LITERATURE

1936

By
GRACE LUCILE BEEDE

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PREFACE

To Professor Henry W. Prescott, who suggested the subject and directed the preparation of this study, it is a pleasure to express my thanks and appreciation; and also to acknowledge my indebtedness to Professor B. L. Ullman for a critical reading of it.



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INTRODUCTION

A considerable literature has already developed, dealing with the sources and models used by Vergil in the composition of the Georgics. Examination into the poet's art of translation, however, has been rather cursory.¹ Therefore it is my purpose in the present work to analyze a selected passage of the Georgics,

¹In 1568 F. Ursinus published a collocation of the texts of Vergil and the Greek writers to whom he was indebted. This was reedited by L. Valckenaer in 1747. It has been the custom of editors of Vergil to make some introductory statement concerning the poet and his sources or to cite parallel passages in the course of their commentary, or both. (Cf. editions by Jahn, Conington, Ribbeck, Sidgwick.) As for thorough investigations devoted exclusively to Vergil and his sources, Eichhoff, in 1825, presented for comparison Vergil's text, followed section by section by Greek passages on the same theme, interspersing a few very general remarks; the dissertations of Knoche, 1877, and Hans Morsch, 1878, offer the text of the Georgics, accompanied by that of the Greek sources, arranged according to the authors of the latter. Morsch treated the subject more seriously than did his predecessors, according critical treatment to the relation between Vergil and his sources, and drawing the conclusion, with which I do not agree, that Vergil drew upon Greek authors alone for material. Glaser, 1880, gives a literary rather than linguistic, aesthetic and appreciative rather than philological and critical view of the subject. Brandt, 1884, surveys the field in a superficial way; but Van Wageningen, 1888, published a dissertation, the third chapter of which is a comparative study of the Georgics and its sources, the texts which show close correspondence being presented sentence by sentence, with a running comment on noticeable differences. P. Jahn, in a series of publications, has done the most exhaustive work in establishing the sources of the Georgics. Regel's dissertation, 1907, is concerned with a comparative study of Vergil and his sources, treating first of the Greek poets and then of Latin poets, and arriving at the conclusion that Vergil is not as dependent on these sources as is generally supposed. Erdmann, in his dissertation of 1913, not only surveys the sources and models of Vergil's Georgics but investigates the dependence of Vergil upon Ennius and Lucretius and by means of a rather detailed analysis of a few cattle-breeding directions taken from Varro endeavors to determine the degree of dependence of Vergil upon Varro, as to both subject matter and language. This approximates the type of study we are making of the Aratus-passage and the method by which we pursue it.

in relation to its sources, to discover if possible the principles underlying Vergil's art as a translator. The body of the thesis involves a comparative analysis of Georgics i. 356-465 and Phaenomena 773-1036; for the fact that Aratus is the source of this portion of the Georgics is indisputable.¹ Heretofore, consideration of the Aratus passage has been of an incidental nature. Expression of interest has been largely confined to an acknowledgment of Vergil's dependence upon the Greek poet and to comparatively broad statements regarding the nature of their actual relationship.²

In no sense of the word is this a source-study such as that made of the rest of the Georgics by P. Jahn, but the inquiry consists, rather, of a minute examination of the text of the specified Latin and Greek texts, a systematic comparison, for discovering possible correspondences and differences in structure, expression, and spirit which may reveal the characteristic features

¹Cf. Servius ad G. i. 354: "etiam ex hoc loco prognostica sunt translata de Arato, pauca de multis." Macrobius Sat. v. 2. 4: "Dicturumne me putatis ea, quae vulgo nota sunt, . . . quod in ipsis Georgicis tempestatis serenitatisque signa de Arati Phaenomenis traxerit." Also Ribbeck, Gesch. d. röm. Dicht., II, 38; Leo, "Vergil und die Ciris," Hermes, XXXVII (1902), 50-52.

²For cross-references on Vergil and Aratus, see: Ursinus; Phaenomena, Maass ed.; Georgics, Jahn ed.; Ribbeck ed. 253-54; Conington ed. 145-46, with a statement as to the difference in purpose between Vergil and Aratus; Sidgwick ed. 29-31, with the remark that Aratus, whose works "are extant, written in a stiff and frigid style," supplied Vergil with hints for the passage (i. 351-463); Skutsch, 106-7, lists cross-references and comments, 106-10, on Vergil's use of Aratus, citing additions from other sources, as does Glaser, 218-20.

Also cf. Ribbeck, Gesch. d. röm. Dicht., II, 38-39, who simply comments on "Diosmela des Aratos" as source of a section of G. i (351-460); Leo 50-52, comments on the difference in arrangement and style. This is summarized by Regel 29-30. Seelisch 11-12, summarizes the passage, and speaks of its four major divisions; Erdmann 12-14, touches on the arrangement of material and indicates changes and additions; Brandt 3, merely affirms the fact that Aratus seems to be the sole source of G. i. 356 ff. Knoche 31-40, Morsch 13-31, Van Wageningen 126-42 (cf. p. 1 n. above) present the parallel texts with more pointed comment on discernible differences between the Latin and the Greek.

of Vergil's art as a translator.

The text of the sections under scrutiny has been drawn up, in the Appendix, in parallel columns. The Latin text has been spaced as accurately as possible to coincide with the verses of Aratus to which it is related, but the juxtaposition of verses is managed solely for the convenience of the reader who may wish to refer to the text, and is not meant to indicate that a given Latin verse is derived from the Greek directly opposite. Although the editions of P. Jahn and E. Maass are the basis of my actual investigation, the practical considerations of uniformity in type and spacing and of what would be the most economical set-up for photographic reproduction, led me to present the Loeb texts of Vergil and Aratus in the Appendix. Important variations from the texts of Jahn and Maass are recorded there.

Since in the Latin version deviation from the original Greek is likely to be due, to a large extent, to the exigencies of the Latin language and of meter, conclusions cannot be safely drawn unless the number of examples of a particular feature of Vergil's translation is relatively large. While therefore, I assume responsibility for the Aratus passage alone, it has seemed expedient, on the basis of my independent study, to compare the remainder of the Georgics with the texts of Varro, Theophrastus, and Aristotle, who have been convincingly demonstrated as sources, though perhaps with some intermediation.¹

¹Upon investigation, I have found Cato as a source to be negligible. Varro, in my opinion, is among the direct sources of the Georgics. Not only do I consider the work of Jahn and Erdmann convincing, in this matter, but careful comparison of the texts of Vergil and Varro reveal many elements of relationship similar to those where the case is indisputable, e.g., the relation between Vergil and Aratus. Moreover Engelke, who endeavors to disprove Varro as a source for Vergil, bases his conclusions for whole sections upon the analysis of only a few passages. My procedure, however, begins where that of Engelke leaves off, and

Where this study has resulted in evidence confirmatory of the artistic principles manifested in the translation from Aratus, substantiating citations are submitted in the Supplement.

falls into line with his final suggestion, page 53, to the effect that it will be worth while to investigate by what plan the poet has put into verse the material handed down by writers, and has adapted this material ad artem carminis didactici.

CHAPTER I

COMPARATIVE ANALYSIS OF PARAGRAPH STRUCTURE

The architectural features of the Georgics have been studied and presented by others.¹ The division into four books and the subdivision of each of these into clear-cut sections, with a definite forward-moving scheme in spite of frequent digressions, comprising a well-rounded whole, is common knowledge. G. 1. 351-464, the object of our immediate concern, is one of these sections. The broad outlines of its structure have been compared with those of Ph. 773-1036; its source;² but we shall examine and compare the internal structure of these related passages with a view to discovering if possible the general tendencies of structure in Vergil's composition. Correspondence and difference, alike, serve the inquirer as a key to the poet's native judgment, taste, and feeling for structural refinement.

Comparing these sections in the large, let us first look at the content, the ideas presented, and then at the arrangement of these ideas. As indicated by the difference in the length of the two passages, Vergil is found to exercise free selection of material. Two elements are consistently and conspicuously omit-

¹ Jahn ed., especially xxxv-xli; Conington ed.; Burck gives a detailed exposition of the structure; Seelisch offers a synopsis of content; Lilly, an outline of the subject matter. Witte presents a diagram of the symmetry on the basis of the number of lines for each part, a technical treatment positing the unity of the Georgics; Drew constructs a table showing the intricate mechanism of the balance maintained in the structure of the four books; Schmidt discusses and diagrams the rule-of-massing discerned in the verse groups.

² See p. 1 n.

ted: halos (about the moon 811-17, near the sun 862-89, on a star 941), and constellations and signs of the zodiac 892-908, 995-98. With the exception, moreover, of three signs of stormy weather (i.e., waterfowl flying from the sea 1025, the flight of cranes 1028-32 and the routing of pigs 1123), the substance of 1021 f. is omitted although this is a significant passage in the Greek, containing as it does not only further weather signs, but also an enumeration of signs indicative of the length and severity of seasons, and the conclusion, at 1142, of the whole section, with a statement on the validity of the prognostications. For the most part the remainder is kept, but with the following scattered omissions: the detailed elaboration of the import of the moon's appearance on certain days and at certain periods of the moon-cycle, 804-11; elaboration on the rays of the sun at rising and setting 840-47, and more on the same subject with the addition of comments on the significance of mists 847-57; of the hue of the sun, concerning mists, and concerning halo near the sun 862-89; thunder and lightning as signs of wind 924-25; one of the four water-fowl mentioned 913-20; the detail of the swallow striking the water with its breast 945; the poetic details identifying the frog: ὄδποισιν ὄνειρα 946 and πατέρες . . . γυρίων 947; the actions characteristic of centipedes, earthworms, tame fowl and chanticleer before a rain 957-63; of tame ducks and jackdaws, heron flying to the sea, and of midges 970-76; of the pot and tripod on the fire and sparks among ashes 983-87.

Not only is the Greek subjected to this selection of material, but that which is retained undergoes various degrees of condensation. Drastic condensation takes place in the adaptation of the section on the signs of the moon. The three essential factors, namely the horns and the hue of the moon, and the signif-

icance of the time of the month when certain phases are to be observed, are retained; but Vergil devotes only nine verses (427-35) to these facts, whereas Aratus extends over forty verses (770-810) the development of this theme. Now and then, as in sin ortu quarto namque is certissimus auctor 432, accuracy of information seems jeopardized by over-condensation. Here Vergil is content to indicate the fourth day of the month alone as the most critical time for prognostication, while Aratus mentions several times the third and fourth days as being especially significant. (Cf. Ph. 783, 786, 788, 792, 806.) For the most part, however, only a few verses at a time undergo condensation, and this as a result of suppression of repetitions, which are so characteristic of Aratus, and of incidental descriptive details. Such condensation is exemplified in sequentes ordine 424-25, which expresses the belabored description of Ph. 733-37.

In connection with the problems of selection and condensation of material it is illuminating to note how often **items** retained, scattered as they may be, coincide with the beginnings, and sometimes with the endings of the Greek thought-groups, as a glance at the set-up of parallel passages in the Appendix will verify.

In at least six instances, additions of material independent of Aratus are to be observed: 383-84, 398-99, 404-9, 415-23, 436-37, 447.¹ Elsewhere, bits are added which reproduce nothing in Aratus and yet are not totally independent of him, for they reflect a suggestion in the source, an omitted portion for which they stand as a substitute. Such is the nature of angustum for-

¹ For sources of these verses cf. Ribbeck 250-67, Skutsch 108 f., Leo, Hermes, XLII (1907), 66 f., Erdmann 13 n. and 14 n., Glaser 218-20, Knaack 207-8, Morsch 80.

mica terens iter 380, an addition, possibly suggested by *κοίλῃς* 956. The whole replaces, as a descriptive detail of the ants' labor, the omitted *θῆσσοι* 957. In poetizing an idea in the source, too, a new idea may be introduced. For example, compare *G.* 448 with *Ph.* 847, and 372-73 with 935; also note that agricolis pelagoque 429, which is suggested by a warning for sailors 765-66, includes farmers as well.

Changes result from a curious telescopic treatment of the source, according to which the poet does not necessarily follow a single consecutive passage, but uses for the development of one idea material from two or more, and occasionally widely separated, parts of the source, dealing with the matter in hand. An example of this occurs at 370 f., where thunder and lightning are cited as indications of rain. "Thunder" is an addition at this point (cf. 933 f.), but was mentioned in connection with lightning at *Ph.* 924-25 (omitted in the translation) as a sign of wind.¹

Manipulation of the source in this manner takes place frequently, but does not always entail a change or addition of thought as stated above. More often its only significance lies in the rearrangement of ideas. Thus an idea from *Ph.* 1028-32 finds its way into the text of *G.* 374-5, in a paragraph which as a whole follows 924 f.; 1034 is imitated at 391, in a paragraph after 973 f.; 1013-18 is echoed at 395-97, and 1123 is translated at 399-400, which come in the paragraph based on 994 f.

Or again, this strange juggling of items in the source results simply in massing of details. For example, at *G.* 381 we find e pastu decedens, a prepositional phrase plus a participle,

¹ Although this particular reference is a good illustration of Vergil's telescopic treatment, such linking of thunder and lightning is, of course, a literary commonplace.

which tallies exactly with ἐκ νομοῦ ἐρχόμενα 1027, of crows, followed by agmine magno, a translation of ἀγεληδὶ from verse 965, a part of the immediately related passage of the source. Similarly, sub lucem 445, is a translation of ἐπερχομένης ἡοῦς 827, which properly, in the Greek, comes in with the sign just before this one.

Yet apart from internal differences such as these, the broad outlines of subject matter are alike. With the exception of the omission of the astral signs 892-908, Vergil, in departing from his source, has not omitted or materially altered any major topic. Like Aratus, he has a brief prooemium and divides his subject into four main parts.¹ The following outlines will expedite a comparison of the structure of these sections. Phaenomena: Prooemium: moon and sun 773-77. 1) lunar signs 778-831, 2) solar signs 832-89, 3) astral signs 892-908, 4) terrestrial signs: of wind 909-32, of rain 933-93, of fair weather 994-1012. Georgics: Prooemium: rain and wind 351-55. 1) signs of storm 356-92 (a. of wind 356-69, b. of rain 370-92), 2) signs of fair weather 393-423 (a. negative, b. positive), [introduction to moon-sun section 424-26,] 3) lunar signs 427-37, 4) solar signs 438-60.

The structural elements of the Phaenomena may be still further reduced, for the first three items are related, and, in combination, come under a general heading of "Celestial signs" (130 vss.), while the fourth, "Signs from land and sea," is in itself a general heading embracing three parts. With this in mind, we see that Vergil keeps the moon-sun order of Aratus, Part I, and the wind-rain-calm sequence of Aratus, Part II; and his transitional verses 424-26 which introduce the former further attest his imitation of this scheme. So also does the fact that the Latin does not follow the Greek in its original sequence, but

¹Cf. Regel, p. 29.

rather 356-423 follows 909-1012, and 427-60 follows 778-818, which is a reproduction of I and II, in reversed order. It has been plausibly suggested¹ that this reversal was made so that the paragraph on solar signs might be used as a transition to the final passage of G. i, on Caesar, introducing the solar phenomenon which foretold the death of Julius Caesar. This is indeed logical and in accordance with Vergil's plan in the large; just as the scheme of the Greek, which starts with an account of the heavenly bodies and passes on to a loose account of non-astral phenomena, accords with the plan of Aratus, who is writing an astronomical poem.

In general, Aratus' method of presentation can be justly characterized as the tabulation of a multitude of facts, partially systematized under several headings but subjected to little or no integration. In 521 verses devoted to at least 13 topics, only four major transitions are to be found. Equally disjointed are the items within each topic. Both main divisions and statement of facts involve many repetitions and backtrackings. Something like an introduction is found in 757; 1142-54 may be taken to constitute a conclusion.

This is what Vergil had before him when he wrote 356-465, yet how different are the results. Selection of material has reduced some of the complications. Reorganization of the rest of the material has resulted in greater unity and compactness of the parts. Additions have served his poetic purpose and have rounded out the paragraph on signs of fair weather² 393-423 (one of the

¹Loc. cit.

²Signs of storm, 39 vss.; signs of calm, 31 vss.; celestial signs, 34 vss.; omens (which are properly a part of this section of the Georgics, and probably the immediate excuse for the foregoing, though not taken from Aratus), 37 vss.

shorter sub-divisions in the Greek version 994-1011) to a length proportionate with that of the other three topical divisions. The general statement 351-55, which introduces and offers a key to the section has no parallel in the Phaenomena passage.¹ Transitions join the subdivisions smoothly; and the close is marked by a statement, 460-65, which acts also as the opening of the next section, effecting a fusion of the major parts.

We shall now examine the make-up of each paragraph. The body of the first paragraph, 351-92, follows the Aratean sequence with its discussion of signs of wind in the first portion, of rain in the second. A transition, 370-73, introduces this latter, not specifically mentioning rain, as the Greek does, but describing its effect upon land and sea. Numerous as are the prognostications named in the source, Vergil retains the majority of them (Ph. 957 f. is a notable exception), and even preserves their original sequence for the most part. We note, however, where changes occur, in the first part, that Vergil's order of ideas, in contrast with that of Aratus,² harmonizes with the natural procedure of the observer, deftly drawing the reader through the same process. A storm at sea, poetically indicated in 360, is the theme. Consequently, a) the landward flight of birds from the sea is first mentioned, b) then the unrest of the birds on the shore,

¹The dissertations of Morsch, p. 15; Eichhoff, p. 160; Knoche, p. 32; and the editions of Conington, p. 208, Ribbeck, p. 253, and Maass, p. 4 note a correspondence with the opening lines of the Phaenomena here. Careful analysis, however, proves this opinion unfounded. Skutsch 106 f., compares only G. i. 356 f. with Aratus.

²These ideas occur in Aratus in the following order: a) the landward flight of birds, b) birds on the shore, c) cloud on mountain peaks (vs. bird soaring in sky), d) water's surface, x) thunder, e) star, f) significance to man. That Vergil should freely manipulate his source in the matter of sequence of words, phrases, clauses, and even sentences is to be expected. Often, as here, the reason is apparent; sometimes it is not.

and finally (notice the effect of the final connective, atque 364) c) the lofty soaring of the ardea, which carries the mind's eye of the reader to the heavens, d) whence the shooting star falls headlong, returning one's attention with it to e) earth and the water's surface, to f) the cares of farmer and mariner. The cycle thus described contributes to the symmetry of the paragraph.

In the second half of the paragraph, the "rain" section, which marshals many signs, less symmetry of design is apparent, yet even here there is a degree of integration. The first sentence 373, and the last 390 f., are negative. In the first sentence, coherence results from a sequence of related ideas:

aëriae (grues), (bucula) caelum, lacus
circumvolitavit (hirundo), in limo (ranae);

in the second part, in the external device of juxtaposition of opposites:

angustum (formica) ingens (arcus) 380

e pastu (corvorum) pelagi (volucres) 381-83

This last observation brings to light an interesting relationship between Vergil and Aratus. Aratus names three birds of the corvine family: $\kappa\omicron\rho\acute{\omega}\nu\eta$ 950 (1002, 1022), $\kappa\omicron\rho\acute{\alpha}\kappa\omega\nu$ 963 (966, 1003), $\kappa\omicron\lambda\omicron\iota\tilde{\omega}\nu$ 963 (970, 1026). Vergil keeps the first two, by name (cornix 388, corvus 382, 410 respectively), and ascribes to each its characteristic traits; omits the third (Lat. graculus) except in transferring one of its traits (cf. 1026) to the corvus 382; and in 383 uses the $\kappa\omicron\rho\acute{\omega}\nu\eta$ -description of Ph. 950 f. in connection with pelagi volucres 383, which is justifiable, since this particular species is a sea-raven. At this point Vergil departs from his source in bringing the various rook-signs together (382, 383 f., 388 f.), condensing the whole treatment of them, and varying it by the reference to pelagi volucres and the added poetic details of 383-84. The last sentence of the paragraph is added

loosely, presenting a sign which alone was selected from a paragraph (Ph. 973 f.) containing several miscellaneous prognostications. The insertion of verses 393-94 which serve as transition and as introduction to the subsequent paragraph prevents what might even be seen as a slight thread of relationship between nocturna 390, and stellis 395, of the next sentence.

The section on indications of fair weather, 393-423, has a brief introduction as does the related passage of the Phaenomena 994-1012; but the content varies. The topics of the paragraph follow the order of those in the Greek, making allowances for those omitted here because either already used or not used at all. The content and expression of the initial sentence is interesting because while the nature of the beginning, with stars, may be suggested by the reference to constellations at the beginning of the related Aratus section, 997, it is not a reproduction of this, but rather of 1013 f., the first sentence of the next Greek paragraph. Since, however, this latter is devoted to storm signs, Vergil gives it a negative turn in adapting it to his section on fair weather prognostications. More additions occur in this paragraph than elsewhere in the section, doubtless because Vergil wishes to make his sections about equal in length, while Aratus' passage at this point is relatively short, followed by a second exposition of storm signs, from which Vergil has incorporated parts already, bringing together like with like, but which he does not wish to take up a second time. In this passage, as in the one preceding, repeated connectives and uniformity of sentence relationships (see chapter 11) are a strongly integrating element.

A closer examination of the individual parts throws additional light upon each poet's method in the arrangement of subject matter. A skeleton outline of Ph. 773-891 runs:

moon sun Moon Sun

of G. i. 424-60:

- 424 solem lunasque (introduction).
- 427 Luna.
- 430 Sol quoque.
- 463 sol tibi dabit. solem quis dicere falsum audeat?
(Linked with previous theme; introduces new theme.)

The chiasitic order of this latter ABBA arrangement **differs** from the Greek which runs ABAB. It is a more artificial **sequence**, but in its context has the advantage of leading neatly into the **subsequent** theme, while Aratus attempts a transition neither between **the** introduction and the first section, nor between the first and **second** sections. In the Georgics, however, the interweaving of **the** main elements is typical of the subtle manner in which the development of each falls into patterns.

The section on the signs of the moon, in its essential parts, follows this scheme:

Phaenomena 778 f.:

- A. Observe horns of moon (778 f.)
 - 1. Hue of moon
 - 2. Shape of horns forecast for month already begun
 - a) On 3rd day (waxing)
 - b) On 4th day
 - 3. 3rd day
 - a) Slender and clear indicates calm
 - b) Slender and ruddy indicates wind
 - 4. 3rd and 4th days
 - a) Thick and blunt indicate S. wind and rain
 - 5. 3rd day
 - a) Vertical horns indicate W. wind
 - 6. 4th day
 - a) Vertical horns indicate storm
 - (1) Elaboration of N. and S. winds
 - 7. 3rd day
 - a) Halo; ruddiness indicates storm
- B. Observe hue (799 f.)
 - 1. Half-full, waxing and waning
 - 2. Hue determines forecast of each month
 - a) If bright, indicates fair weather
 - b) If ruddy, indicates wind
 - c) If spotted, indicates rain
 - 3. Periodic signs (805 f.)
 - a) 3rd and 4th days; half-moon
 - b) From half-moon up to full moon
 - c) From full moon to waning half-moon

- d) From half-moon to the 4th day from end of month
 - e) From 4th day from end of month to 3rd day of new month
4. Halos and rings (811-18)

Georgics 1. 427 f.:

- A. Observe the waxing moon (427)
 - 1. Misty moon with dim horns indicates heavy rain 429
 - a) Application of this
 - 2. Ruddy hue 430, indicates wind 431
- B. 4th day
 - 1. Clear and undimmed 434, indicates absence of wind and rain 434-35.
 - a) Application of this 436
 - (1) Elaboration

Little need be said of the arrangement of the Greek, the looseness of which, revealed by the outline, is largely due to the profusion of facts brought in. Vergil, precluding this difficulty by selection and massing of material, encompasses in only ten verses a theme to which Aratus devotes forty-six. A conscious plan underlying the unity of Vergil's passage and the coherence of its parts is apparent in the nice balance which is maintained between the two parts through repetition in the second part of signs given in the first: clear and undimmed horns 433, echoes the misty, dimmed, and ruddy horns 428-30; an application of prognostications is given in each part, i.e., 429 and 436; and key words are repeated in each part, i.e., imber 429 and pluvia 434, ventus 431 and 435.

In the same way, let us compare the section which deals with the signs of the sun.

Phaenomena 819-89:

- A. Observe sun in E. and W.
 - 1. As it rises and sets
 - a) Dawn
 - (1) If not variegated, indicates fair day
 - (2) Likewise if stainless
 - b) Sunset
 - (1) If clear and cloudless, indicates fair dawn
 - (2) A fair dawn does not follow a sun with hollow disk, beams to N. and S., or bright center, for this indicates
 - (a) Wind or rain

- B. Observe the sun itself
 - 1. A blush indicates wind
 - 2. Darkness indicates rain
 - 3. Black and red indicates rain and wind
- C. Rays of sun
 - 1. Convergence indicates rain, as does
 - 2. Cloudiness
- D. Mists about sun
 - 1. Rain is indicated by mist and scanty rays
 - 2. Dispersing mist indicates fair weather, as does a
 - 3. Wan sunset in winter
- E. Clouds at sunset
 - 1. Rain on the morrow indicated by clouds in W.
 - 2. Darkening clouds and shafts indicate a rainy dawn
 - 3. Clear red sunset indicates fair weather
 - 4. Rain is indicated by sun suddenly grown pale and dim
- F. Before dawn
 - 1. Red sun indicates rain
 - 2. Shadowy rays indicate rain
- G. Halos and rings indicate storm
- H. Parhelia at sunrise and sunset
 - 1. If on both sides, and low, indicates clear weather
 - 2. If purple on N. side, indicates N. wind
 - 3. If purple on S. side, indicates S. wind

Georgics 1. 438-60:

- A. Introduction: Sun, at rising and setting, foretokens weather
- B. Signs of storm
 - 1. Aspect of Sun at rising
 - a) Rain is indicated if sun is spotted.
 - b) Rain is indicated if sun's disk is hollow.
 - (1) Application
 - c) Hail is indicated if rays of sun penetrate clouds and diverge.
 - (1) Application
 - 2. Aspect of Sun at setting
 - a) Rain is indicated if surface of sun is variegated
 - b) Rain is indicated if sun is dark
 - c) East wind is indicated if sun is red
 - d) Rain and wind are indicated by a spotted, red sun
 - (1) Application
- C. Signs of clear weather (with North wind)
 - 1. Bright sun at sunrise and at sunset
 - a) Application
- D. Conclusion, and transition to next section

Here again it is difference in organization that marks Vergil's chief departure from his source. Aratus has ordered his material systematically under main headings, but these have little connection with each other, and the development of each is without discernible plan. Interrelation is not established. Vergil, on the other hand, by a process of selection, condensation, and arrangement of like with like achieves a compact grouping. Correla-

tion of parts is managed by various means. Thus, by a negative turn of expression in referring to the signs of clear weather (frustra terreberè nimbis 459), this is subtly fused with the preceding signs in such a way as to maintain the tone of the whole paragraph which is predominantly one of storm prognostications. Analysis shows that Vergil's unified and apparently simple presentation is the result of a scheme as conscious and intricate as that involved in the development of a musical theme. Connection is established between this paragraph and the foregoing one by "Sol quoque." The poet then articulates his plan by stating in the introductory sentence the fact that the significant signs of the sun are to be seen at sunrise and at sunset. This pair occurs four times, in the same order: 1) exoriens et cum se condet 438, 2) et mane et surgentibus astris 440, 3) ubi nascentem 441, aut ubi sub lucem 445, aut ubi surget 446 cum iam decedit 450, 4) cum referetque diem condetque relatum 458. Notice how this theme is largely developed at its third occurrence, 441-57, and serves as a conclusion to the passage at its last occurrence, 458. Continuity is further strengthened by the repetition of sol (cf. sol 438, solem 439, ille 441; and remarkably again sol 463, solem 463, ille 464, which produces the desired effect of summary and conclusion); by the application of each set of signs to human experience (444, 449, 456-57, 459-60); by the "wind in the trees" idea which, brought in near the beginning (arboribusque notus 444), is echoed at the end (silvas aquilone 460); and by the recurrence of "rain and wind"¹ (cf. imbres 443, notus

¹ An appreciable variation is effected by vento 455 instead of Zephyro, which would achieve strict uniformity here, and for which a strange compensation appears in Olympo 450, a poetic reference to the direction, West. With this compare, in the first paragraph: austri, south wind, 354; but Boreae 370, Eurique Zephyrique 371, of direction.

444; pluviam 453, euros 453; vento nimisque 455; nimbis 459, et aquilone 460) with synonyms expressing the former and the three winds given by name.

Another salient feature which contributes to the unity of this paragraph is Vergil's use of connectives. The following structural skeleton shows at a glance that the application of this device is little short of spectacular.

424	SI....que	442	...que
425	NUMQUAM....	443	; (namque)
426	neque	444	que....que....que
427	cum primum	445	AUT UBI
428	SI	446	AUT UBI
429	que....	447	
430	AT SI	448	TUM
431	;	449	
432	SIN....(namque)	450	cum
433	neque	451	; nam (saepe):
434	et....et	452	
435	que	453	,;
436	QUE	454	SIN
437	et....et....et	455	TUM....que
438	quoque et....et	456	Abl. abs. partaking of both cond. and temp. relation- ship (non....quisquam).
439	;	457	neque
440	et (quae).... et (quae).... temporal part. phrase.	458	AT SI, cum....que....que,
		459	,
441	UBI	460	ET

One is struck immediately by the prominence of the conditional form of statement throughout this long section of the Georgics, especially in view of the fact that Vergil is moderate in the use of the conditional turn of expression.¹ The almost unbroken chain of simple linking connectives used for the secondary relationships is no less remarkable, for although Vergil runs heavily to the compound type of sentence,² the cumulative effect in a passage of this length is arresting. A rapid reading results, as one would expect, in the feeling of continuous piling up. A third element is the negative turn of expression, used to advantage not only in its own unit of thought but, by its recurrence

¹Cf. Crittenden, p. 51.

²Ibid., p. 40.

at intervals, contributing also to the symmetrical effect of the whole section. So much appears at a glance.

The larger units are easily sensed, but only with some little application on his own part does the reader become fully aware of the more precise relationships, not articulated by the cumulative connectives. At this point comparison with the structure of the related Aratus passage (773-839) furnishes a key to what we have already discovered in Vergil. Scanned with an eye upon connectives only, the structural treatment appears almost identical: the main propositions are stated in conditional form (εἰ δ' 825, 858; εἴ γε μέν 838), while linking connectives bear the burden of subordinate parts, and a negative turn appears at intervals. The content is largely reduced in extent, in Vergil, but the form is retained; and while the form of a given part of the Latin version may not be identical with the form of the part from which it is immediately derived, still the form of the whole corresponds closely, as a comparative survey of the structural outlines demonstrates, and results in the same feeling.

CHAPTER II

COMPARATIVE ANALYSIS OF SENTENCE STRUCTURE

Let us similarly analyze the structure of the individual sentences in G. 1. 356-460. A first reading shows with what varying degree of fidelity Vergil follows the Phaenomena of Aratus. The use of the source leads to literal translation, paraphrase, and the development of mere suggestion. The principles of selection, condensation, and development, already noted in connection with the paragraph structure, are felt when sentences alone are considered.

Keeping these elements in mind, let us study the section sentence by sentence. 1. 356-59 corresponds to Ph. 909-12. The former is composed of coördinate clauses. By omission of the ὅπου clause 911, the pure balance of Vergil's sentence is attained. Ventis surgentibus 356, is a literal translation of the participial κινουμένων ἀνέμοιο 915, and is given a prominent part in the sentence, suggested perhaps by the key position of Σῆμα δέ τοι ἀνέμοιο 909. Noticeable is the series of infinitives in the Latin; the Greek contains a series of participles. Thus the effect of the repeated verb form is retained. The introductory continuo is added, independent of Aratus. Both writers convey the same information, and in the same thought order: 1) sea, 2) land, 3) sea, 4) land; and in the same order of sense appeal: 1) sight, 2) sound, 3) sound, 4) sound. But whereas Aratus strings these four ideas together in loose, paratactic connection with καὶ καὶ τε τε; Vergil, by deft arrangement of connectives (to the symmetry of which I have endeav-

ored to give graphic form by the curved lines),¹ presents two clear-cut, vivid situations, distinguishing (aut aut)²

¹G. i. 356-59: aut et aut et.

While in general the pattern usually takes the form of et et aut aut (cf. G. ii. 97-100; iii. 351-53, 559-60, 158-61; iv. 165-68; E. vii. 49-52; x. 35-36) or of et aut aut et (cf. G. i. 72-76; ii. 195-201, 434-36; iii. 435-39; iv. 47-50, 256-59, the "interwoven" pattern of G. i. 356-59 appears elsewhere in varying degrees of intricacy. Analogous to our case are G. i. 247-50, 272-75; iii. 416-18; E. vi. 74-80; A. vi. 365-71; x. 862-66; xi. 494-97; xii. 13-17. Following the same principle, but more elaborate are G. ii. 495-99:

(non) , (non) , et aut ,
(non) , neque aut aut;

and G. iv. 406-10; A. ii. 35-38; x. 862-66.

In passing it might be remarked that aside from the variation and plasticity achieved by these arrangement-devices, symmetry is noticeably served in cases where the pattern includes connectives standing in more than one sentence. Such subtle linking occurs in G. i. 272-75: -que (272). / Aut (274)
(14) que aut. Also A. xii. 13-17: Et (13). / Aut (14) (que), et (16) , aut (17) ,
. We shall quote this last example because, with its combination of many of the artistic effects to be seen in our passage in the Georgics, it shows the principle wrought to perfection and will serve to sum up the point.

concredior, fer sacra pater et concipe foedus.
aut hac Dardanum dextra sub Tartara mittam,
desertorem Asiae (sedeant spectentque Latini),
et solus ferro crimen commune refellam,
aut habeat victos, cedat Lavinia coniunx.

The interwoven pattern of expression indicated by the arrangement, the accentuated balance, attained in this case by the double statement, with asyndeton, in each half; the linking of the two sentences; and an additional factor of no slight importance, namely that the vowel or diphthong of the connective sustains the predominant sound element of the verse in which it occurs. This last consideration is marked in G. i. 248; ii. 34; A. ix. 608; et passim.

²While aut may have copulative as well as disjunctive force, and purely from the standpoint of the Aratean source this might be expected here, common Vergilian usage and the significance and arrangement of the other words of the passage combine to point clearly to a true differentiation. Turning to other examples of the aut aut et et (or -que -que) combination in Vergil, with the possible exception of E. i. 60-62, aut is used to introduce an alternative. This is true in G. i. 71-76, 247-51 273-75, 356-59, 483-85; ii. 97-100, 195-202, 347-51, 434-36, 495-99; iii. 352-53, 416-18, 435-39, 559-60; iv. 47-50, 158-68, 256-59, 406-10; E. vi. 74-81; vii. 49-52; x. 35-36; A. i. 180-83, 361-62; ii. 35-38; iv. 184-88; v. 446-49; vi. 365-71; vii. 162-65; viii. 313-18; ix. 602-8; x. 803-11, 862-66; xi. 487-97, 494-96; xii. 13-17. Often, too, the

between the fury of the storm bursting at hand, and the persistent rumblings of the storm coming from afar.¹ Furthermore, two phrases are clearly indicated within each of these pictures, namely the effects on sea and on land (. . . . et , et). This combination of fusion and differentiation produces an effect which, far from inviting analysis, conveys its intended impression immediately and simply.

G. 1. 360-64 combines the content of three sentences of Aratus, but both poets employ linking connectives and temporal clauses. 360 repeats, in variation, the theme of 356-60. As ven-tis surgentibus served as a key to that sentence, so verse 360 serves as a key to this; each, we note, coming at the beginning of its own sentence. Therein Vergil departs from the arrangement of his source. For while 909 opens with the key Σῆμα δέ τοι ἀνέμοιο, the first of the next three closely-knitted sentences, 913-19, is periodic and the participial κινουμένων ἀνέμοιο comes not at the beginning, 913, but at 915, the end. Aratus' series of temporal clauses, the connectives of which are translated by cum que, cumque, (cum)que, is singularly well adapted to produce the effect desired here. The behavior of birds,

balance established by aut aut is reinforced by a striking balance of adjacent words, as by the pronouns in E. vi. 74-80:

74	76	78	80
Aut (quam).	et	, aut (quas).	(quae). . . .et

This particular example, be it noted, follows the pattern of our passage.

¹ Even before the full force of the connectives may be felt, the situation is made vivid by the inescapable contrast between fragor and murmur, made compelling by the emphasis and dead parallelism of their position at the end of the respective clauses. One almost quakes at the swelling and lashing of the billows, the crashing of trees, and still further dreads the coming of a worse fury promised by the growing confusion resounding on land and sea from a distance. Add to this apparent differentiation, marked by the diction, the structural fusion pointed out above, and the work of the artist is revealed.

a sign indicating the coming of a storm, is presented as a unit among signs of a different nature. This unit, confined to one sentence, is divided so as to include the significant actions of various kinds of birds, actions which might or might not appear simultaneously and which are of equal weight as prognostications. Repetition of the introductory word produces the right sense of value. The balanced construction of the sentence, moreover, is comparable to that of the preceding sentence; while the paratactic (. . . . que que que), which follows the source, is at welcome variance with the alternative (aut aut) form used there.

In 365-69, too, the participial vento impendente comes near the beginning, thus balancing what we found in 356 (i.e., participial ventis surgentibus) and in 360 (repetition of content). This accents the connection of these sentences. And comparison with Aratus on this point leads to a significant revelation.

356 ventis surgentibus	909 Σῆμα ἀνέμοιο
360 repetition of this idea	915 κινυμένων ἀνέμοιο
expanded to a whole vs.	
365 vento impendente	928-29 ἐρχομένοιο πνεύματος ¹

In these corresponding passages then, both have the two similar participial phrases, both express the idea a third time, in a different form, both repeat the key word (i.e., ventis 356, vento 365; ἀνέμοιο 909, 915). Aratus has varied his participial phrase slightly by using ἀνέμοιο 915, πνεύματος 929; Vergil too has varied

¹ If the validity of citing Ph. 928-29 as a source for G. 365 is questioned because of the distance between it and Ph. 915 which was used for G. 360, the following examples will show that this is entirely in accord with Vergil's practice. Either treatment of identical matter in different sentences, removed from one another in the source, or similarity of stylistic elements in separated passages may lead to a fusion and bringing together of these elements by the poet, who is so keenly alive both to systematic arrangement and to balance of expression. This happens time after time; e. g., G. 373-78, discussed on pp. 25-26; 379-82, p. 26; 395-96, pp. 28-29.

the phrase slightly, by a mere change in number. By substitution, in 360, Vergil has made two improvements over his source, i.e., he has given a picture of poetic value, which is preferable to the matter-of-fact $\Sigma\eta\mu\alpha$. . . ἀνέμοιο 909; and he has rejected, as he so often does, anything so obviously didactic as $\Sigma\eta\mu\alpha$. What he has gained by the position accorded these three expressions of primary importance, putting emphatic ideas first, as it were, has already been observed.

A further point of balance is attained by repeating the infinitive form (labi 366, albescere 367, volitare 368, colludere 369), just as balance is felt in the temporal clauses of the Greek (ὅπποτε 922, ὅτ' 926). Vergil's syntactic solution of this problem, be it noted, is more compact, less clumsy than the clauses of the Greek, and has the advantage of leaving videbis 365, standing out as the only finite verb and thus extending very real, though perhaps not consciously felt, participation to the reader. This is likewise true of the Greek, for δειδέξῃ 927, as the verb of the independent clause in a complex sentence, stands out in contrast with the other verb forms of its sentence. Videbis also keeps the second-person element of δειδέξῃ. The anaphora of saepe, 365 and 368, which marks clearly the two additional signs, retains the balance of Aratus' καὶ . . . καί.¹

¹The introductory saepe etiam 365, is the equivalent of πολλὰ καὶ 918 and, in its connection with stellas . . . videbis praecipites . . . labi, is justified by ὁσέως ταρφέα 926-27; while saepe 368, in sense, is justified in its connection with paleam et frondes . . . aut . . . plumas by Aratus' πολλοί 922. Saepe, as here, and saepius (e.g., G. i. 379) do not infrequently fall at the beginning of Vergil's verse. Thus, in 9 out of its 26 occurrences in the *Georgics*, saepe is initial, 2 of the 3 cases of saepius, and all 7 of saepe etiam. As in G. 365 and 368, this adverb may occasionally be traced directly to an equivalent in the source (e.g., G. i. 411, πλείότεροι, ἀγελῶν 1005; G. 451, πολλὰ 834 end); but in most cases Vergil has used it quite independently (e.g., saepe is apparently added at i. 354, 465. This is not surprising since, aside from its metrical adaptability and its didactic flavor, it serves an obvious structural

The next sentence, 370-73, is, like its source, Ph. 933-37, complex. At, with which it opens, translates the sentence connective αὐτὰρ 933. The subordinated clauses, too, are taken from the source: cum, ὅτ' 933. Noticeable however is the balance of the cum-clauses in the Latin in contrast with the single ὅτ' clause in the Greek. Once our attention is attracted to this feature we perceive that the whole structure of the sentence is built on this principle. The various elements of the sentence are developed in pairs, a fact which, with the exception of ἄλλοτε 934 . . . ἄλλοτε, is not true of the source. This balance comes over in the Latin -que . . . -que 371. But also note cum . . . cum, mentioned above; fulminat 370 . . . tonat 371, vs. the single verb, ἀστράπτεισιν 933; parte 370 . . . domus 371, which are balanced in thought although not grammatically, and fall effectively at the beginning and the end of the subordinate part of the sentence; and the addition of rura, etc. to make a double application, parallel with navita 372, which is carried over from ναυτίλος ἀνήρ 935.¹

G. i. 373-78 shows many of these same likenesses and differences. In the first place 373-74, independent of the source,

purpose. The balance noted in 365 and 368 obtains also in saepe 316, saepe etiam 322 (initial in both verse and sentence). Elsewhere, as a means of variation, it marks a change and sets in relief a series of balanced connectives. The part it plays in sound harmony is a further consideration. For example:

- iv. 276 saepe deum nexis ornatae torquibus arae (this diphthong is prominent throughout vs. iv. 271-78).
- iii. 282 hippomanes, quod saepe malae legere novercae.

¹ Not exactly falling in the category of sentence structure but at least a nicety of composition, is the repetition of root in Navita . . . Navita 372, forming a pair of a different nature. As for the ideas themselves, observe how Vergil adds thunder to lightning at this point. This is perhaps due to the influence of Ph. 924, the first line of the paragraph immediately preceding the verses used here and not reproduced by Vergil in its own proper sequence. That Vergil reduces the four points of the compass (Ph. 933-34) to three (G. 370-71) is also interesting. The South is omitted; but notice austri 354. Cf. p. 17 n. above.

is a key sentence which obviates repetitiousness characteristic of Aratus, who did not employ this simple device for clarity.¹ In composition the details of the sentence correspond closely to the source. Numquam 373, reflects the negative of Ph. 936. The series of alternative clauses is common to both; i.e., although Ph. 1028-32 (used for G. 374-75) is complex, and the compound structure of 954-55 (used at G. 375-76) is paratactic, Vergil attains structural uniformity by reproducing, in his whole sentence, the compound structure of Ph. 942-53 (used for G. 377-78) with its alternative relationship. In short, the aut aut sequence, duplicates the ἢ ἢ of Aratus 942-54, continuing this sequence for clauses joined here although drawn from another sentence of Aratus. Thus aut bucula 375, parallels the καὶ βόες 954.² In view of this consistency, one might be surprised by et 378, in place of aut for ἢ 946. A possible reason for the poet's abrupt change here is a desire to maintain the prominence of the "e" sounds of this particular verse. The series of finite verbs in this sentence also is in keeping with the source. There, indeed, they are not all in the perfect indicative, as here. But the balance and uniformity felt in the repetition of the perfect following the perfect obfuit 374, at the beginning of the sentence, is marked.

The compound sentence structure of 379-82 corresponds to that of the source, Ph. 956 ff.; and the paratactic arrangement of clauses (et 379 et 380 et 381) is prominent in this section of Aratus, too: 956-57 (on G. 379) is part of a compound sentence (cf. καὶ 954, καὶ 956, καὶ 957, καὶ 958); Ph. 940

¹Cf. also G. 1. 393-94, discussed on p. 29; 401-3, pp. 30-31.

²Varro Atacinus translates this literally: et bos. Vergil was aware of this translation, as we shall see, but, for his purpose here, preferred to use aut to balance the aut of 374.

(on G. 380) is compound (cf. ἥ 940, ἥ 941); Ph. 963-66 and 966-72 (on G. 381-82) are each compound (cf. καί 965; and καί 966, ἥ 968, καί 970, ἥ 972). This sentence, like G. 1. 360-64, is a telescopic translation, from these four sentences of Aratus. While, therefore, such broad aspects as a series of coördinate clauses are seen to be common to both, there is difficulty in making comparison of lesser structural points. At the very outset, we find the addition of an introductory saepius, recalling saepe etiam 365 and saepe 368. This may have been suggested by πολλάκι 942, the first word of the preceding paragraph. Verse 382, from Ph. 969, shows a quality which distinguishes the composition of Vergil from that of Aratus, i.e., he uses fewer verbs. Participial appendages are so numerous in Aratus that, in their very effort to make the subject more specific, they delay the action, hinder the movement. One is not conscious of this in Vergil for the simple reason that he leaves out superfluous verb forms. By way of example, increpuit densis alis 382, adequately translates μακρὸν ἐπιρροιζέσσι τινασσόμενοι πτερὰ πυκνά 969, but omits τινασσόμενοι.

The following sentence, 383-87, departs slightly from the structure of its source, 942 f. The noun clause quae rimentur 383-84 introduces a complex element not found in the Greek. The subsequent verses, however, 385-87, consist of three independent clauses comparable to those of the source but, in keeping with the copulative connectives of the preceding sentence, are joined by nunc nunc 386, et 387, rather than by the alternatives used in the source (cf. ἥ 944, 946, 948, 949, 951, 953). The series of infinitives here, dependent on videas 387, repeats the construction of 365 f. (cf. p. 24), to the same effect. Following the series of verbs in the perfect indicative, 375 f.,

they afford a variation not found in the Greek which employs finite forms of the verb throughout this passage. Closer analysis avails little because 375-89 clearly shows the intermediation of Varro Atacinus, with a fragment of whose work these lines coincide wherever they deviate from the Greek source. Vergil is independent of both in the matter of order of ideas, but the sentence construction is similar for all three.

At G. 388-89, Vergil composes a new sentence of material incorporated by Aratus in the one long sentence, 942 f., which serves as the source of this and the preceding sentence. Like G. 385-87 and the source, it is compound in structure. Tum not only effects a transition but, in one word, recapitulates a general situation.

In G. 390-92 Vergil again simulates the sentence structure of his source. Testa ardente 391, supplants a conditional clause (cf. Ph. 978), but the subordinate cum-circumstantial clause in G. 391-92 corresponds to the conditional clause, μηδ' εἴ κεν κτλ. 980; and the two coördinate infinitives reflect the balance of the double statement: ἄλλοτε μὲν τε ἄλλοτε δ' 978-79. The fact that it is a night sign is stressed, by position, in both: νύκτα κατὰ νοτίην at the beginning of Ph. 977; ne nocturna quidem at the beginning of G. 390. The negative cast of the latter reflects the negatives of Ph. 974 f. As for the verbs again, nescivere 391, contrary to Aratus (cf. 1034), continues Vergil's series of perfects and retains the negative expression of Aratus. (cf. μηδὲν ἀπόβλητον γινέσθω 973-74; μηδὲ λελαθέσθαι 983-84); while scintillare and concrescere 392, dependent on viderent, repeat the construction remarked at G. 365 f. and 385 f.

Nec minus, opening 393-400, provides another sentence link where the source has none (cf. 994-95); and 394, a key to

what follows, is independent of the source. This sentence, like so many a composite of several in Aratus,¹ follows the type of sentence structure predominant in the pertinent sentences of the source. It is a compound sentence composed of independent clauses (nam 395, introduces clauses of evidence rather than cause, and so is independent), joined by et 394, neque 395, nec 396, nec 397. Of the sentences of the source, 994-95 (on G. 394-95) is compound: μέν 994 δέ 995; Ph. 819 f. (used on G. 394-95) is compound: καί; Ph. 1013-18 (on G. 395-97) contains a series of independent clauses: οὐδέ 1014, οὐδέ 1015, ἀλλά 1016 ἀλλ' 1018, καί 1018, with but a single dependent clause introduced (cf. ὁπότε 1018); Ph. 938-39 (on G. 397) is part of a compound sentence, 938-41, with alternative relationship: ἢ 940, ἢ 941; and Ph. 1123 (on G. 399-400) is part of a compound sentence: οὐδ' 1122, οὐδέ 1123. Thus both the copulatives and the negatives of the Latin follow the Greek original² in the main. The uniformity of the negative expression in the Latin, however, entails some change from the Greek expression: i.e., the accumulation of balanced negatives (nec minus 393, nam neque 395, nec 396, nec 397, non 398, non 399) involves a change from the positive (Ph. 994) at 393-94; retention of a negative (Ph. 1013) at 395-96; a change from the positive (Ph. 938) at 397; addition of a negative at 398-99; retention of a negative (Ph. 1123) at 399-400. This last necessitates a change in sense as well, for the sign is negative in Aratus, positive in Vergil. Tum 395, has the temporal value of ἤμος 1013, but like tum 388 and 410, in its context, concisely

¹In this fusion of source sentences, G. i. 395-96 follows Aratus 1013-18; so doubtless οὐδέ ποθεν νεφέλαι περιεσμέναι ἀντιόωσιν 1014, suggested the verse, but Ph. 938 influences the expression. Cf. Varro's nubes ceu vellera lanae stabunt (cf. p. 23 n.).

²Vergil reverses the sense, however, for he gives signs of fair weather, Aratus of foul. This casting in identical form-mold material of opposite import is curious. Cf. on G. i. 441, p. 33 below.

defines the situation, obviating the use of explanatory clauses which perform this function in the Greek. Likewise, the clause νέφεα οἶα μάλιστα πόκοισιν ἑοικότα κτλ. 938-39 is condensed into the expression temuia lanae vellera 397. The close correspondence between G. 398-400 and Ph. 1122-23¹ is remarkable. Although Vergil changes both structure and content, he retains the perfect balance and general pattern of Aratus. Compare: non non, οὐδ' οὐδέ; the two balanced participial expressions of the Greek become two balanced clauses in the Latin; the double statement of the Greek, describing the action of goats and pigs, is retained in the Latin but with a change in the first member, the action of the halcyons being substituted for that of goats. This substitution is appropriate, following as it does the passage on bird signs and falling in the same paragraph as the reference to Nisus and Scylla.

The sentence 401-3 is compound (cf. et 402), contrary to the complex sentences of the source from which it is derived. The conditional turn of the source (εἴ γε 988) is again rejected in favor of simply two coördinate clauses; and the temporal, adverbial clauses of Ph. 999-1000 ff. (used on G. 1. 402-3), so characteristic of Aratus, who feels the necessity of repeating with almost every sentence such expressions as "this or that is a sign of, etc.," "if such and such occurs then it will be fair," "when this or that takes place you may dread foul weather," "let this or that be a sign to you," "observe this which is a sign," etc., is eliminated by Vergil's key sentence, 393-94, of this paragraph. Further condensation in the Latin is to be noted in nequiquam 403, which alone carries the burden of the much-ado-

¹ Ph. 1122: οὐδ' αἴγες πρίνοιο περισπεύδουσαι ἀχάνθαις
εὐδίοι, οὐδέ σῦες φορυτῶι ἐπι μαργαίνουσαι.

about-nothing theme of the foregoing bird passage (cf. incassum 387) and proclaims the seros exercet noctua cantus 403, as a sign of fair weather comparable to Aratus' μαραινομένου χειμῶνος γινέσθω τοι σῆμα 1000-1001. On the adversative at, making the sentence connection at 401, notice εἴ γε μέν 988, and ἀλλ' 993.¹

G. 1. 410-14 corresponds to Ph. 1002-9,² and both sentences are complex-compound in structure. The Latin contains a series of coördinate clause-groups, some of which, with dependent adverbial and noun clauses, are complex: et 411;;, quia sit 415; verum ubi 417 et 418 (. . . . quae et quae, noun clauses, 419), et 420: This is not entirely unlike the scheme of Ph. 1002-9: καί 999 καί 1001; καί 1003 αὐτὰρ ἔπειτα 1004;, ἐπὶ 1005; κέ οἷα 1007 ἥχι 1009 καί 1009. The introductory tum provides sentence connection again. In its context it means "in clear weather," and so constitutes not only a smooth transition but is a condensed way of calling to mind a situation which Aratus defines repeatedly, with variation, with each item in his enumeration of clear-weather signs.³ Cubilibus altis 411,⁴ does away with a dependent clause (cf. Ph. 1005) which further complicates the structure of the source; and laeti 412, is a

¹G. 1. 404-9 does not follow Aratus. It is a complex-compound sentence, composed of two independent clauses connected by et 405, and two complex clauses, each containing an adverbial dependent clause (cf. quaecumque 406, qua 408).

²G. 1. 415-23 is not according to Aratus. When we consider the fact that most of the complexity of the Latin sentence falls in this portion, we perceive that Vergil's sentence structure is simpler than that of Aratus at this point.

³Cf. Ph. 990: μάλα κεν τόθ' ὑπεύδιος εἴης
991: εὐδίοις κ' εἴης, καὶ ὅτε
995: (Σκέπτεο) ἐς δὲ γαληναίην χειμῶνόςθεν.
Also 998, 999.

Compare tum 388, 395.

⁴Cf. tenuia lanae vellera 397, on p. 30.

highly condensed but adequate substitute for Ph. 1006.

The condition in G. 424-26, is a departure from the sentence of the source, Ph. 773-76, which is paratactic in arrangement (cf. si vero 424, (numquam 425) neque 426; ἄλλα 773 ἄλλα 775; δέ 776 καί 777). The negative phrasing of the conclusion is independent of the source. Effective condensation is again seen in sequentes ordine, 424-25, which embraces the belabored description of Ph. 733-37, itself full of participles.

G. 1. 427-31 and 432-37 with their several dependent clauses resemble the Greek sentence structure (cf. Ph. 778-804), although individual parts, due to condensation of idea and phrase of expression, are a comparatively free reproduction of the content of the source. So verse 427 amplifies σελήνην εὐθὺς ἀεξομένην Ph. 780-81, to the proportions of a cum-clause; G. 429 develops the phrase ὕδατος ἑγγύς ἑόντος 787 into a clause. At both G. 430-31 and 433 we note repetition of content. Although the former is an expansion of Ph. 803, this element of repetition of content is very similar to that found in Ph. 797-98. The prominence of the conditional turn of expression reflects the structure of the source; and the initial position of si 428, at si 430, sin 432 is like εἰ δέ 788, εἰ δ' 792, εἰ δέ 794. The noun clause of 434-35 has no counterpart in the Greek, but is a composite expression of Ph. 805 ff., resulting in condensation rather than accuracy of reproduction. The participial phrase of Ph. 785-86, becomes a clause in G. 433. This last expresses the direct opposite of G. 428 and also of the source, Ph. 785, which, except for the reversal, pura vs. παχίων, and neque obtundis cornibus vs. ἀμβλείησι κεραταῖς, it follows almost word for word.

G. i. 438-40 is a complex-compound sentence, whereas the source 820-21, is a simple sentence. The connectives et et 438, are a translation of ἀμφοτέρων καί 821; and although the changing of δύνοντι 821 to the cum-clause, cum se con-
det in undas, deprives the Latin at this point of the balance et-
tained in the Greek by ἀμφοτέρων καί 821, we must observe the balance Vergil achieves by these cum-clauses at 427 and 438, one in the opening verse of the paragraph on the moon, the other in the opening verse of the paragraph on the sun. And the perfect balance of the Greek does find expression in the translation at 440, so definitely marked by the repetition of form: et quae et quae, and by the balance of ideas: mane sur-
gentibus astris.

Both G. i. 441-44, 445-49, and Ph. 822-24, 825-31 contain subordinate temporal clauses: ubi 441, ὅτ' 823; ubi 445, ὅπότε 828; ubi 446, ὅπότ' 829. This makes the main structures similar, in spite of the fact that G. 445, with its temporal clause, is more directly connected with Ph. 836, which is characterized by conditional clauses. The alternative relationship (aut 445, aut 446) reflects that of Ph. 836 (used on G. 445): εἴ 832, εἴ 834, ἢ εἴ 836; although the anaphora of aut ubi 445, 446, reproduces the double balance of (ἀλλ') οὐχ ὅπότε 828, οὐδ' ὅπότ' 829, and follows the source at this point in varying the expression of what is essentially a condition-relationship by the substitution of a temporal clause. A curious reversal, similar to that in G. i. 393-400 (cf. p. 29, n. 2 above), recurs here, for Vergil discusses prognostications of foul weather, Aratus fair. On the whole, Vergil reduces the complexity of his source, e.g., by eliminating a conditional clause, εἴ που μελαίνεῖ 836, through the translation, densa 445. The number of participles in these sen-

tences, as in most of the Phaenomena, is conspicuous, in contrast with the Latin, which avoids an excess of this as of any other form. The awkward nascentem ortum 441, seems due to the participial νέον βάλλοντος ἀρούρας 822, but mediolque refugerit orbe 442, supplants κοῖλος ἐειδόμενος 828; sub.lucem 445, ἐπερχομένης ἡοῦς 827; and densa inter nubila 445, ἐλκομένων νεφέων (ἐρυθαίνεται) 835.

At G. 450, on the other hand, we again find an adjectival limitation expanded to a cum-clause: cum iam decedit Olympo (cf. 427, 438) translates 'Ἐσπερίοις 890. The sentence as a whole, however (450-56), of which this is a part, is complex-compound in structure, like its source, Ph. 832-39; and the conditional relationship obtains in both: sin 454, εἴ Ph. 832, 834, 836, 838. Hoc 450, is an additional sentence connection, but etiam follows καί Ph. 890. The clause of evidence, introduced by nam 451, may be compared with the parenthetical τοῦ γὰρ σκοπαί εἰσιν ἄριστα; 833. Caeruleus 453, however, is a compression of ἡ εἴ που μελανεῖ καὶ τοῖ τὰ μέν 836. The correspondence in sentence structure between G. 453, Ph. 837, is striking; the verb of the first part is to be understood with the second part: igneus euros (denuntiat); ἀνέμοιο (ἔστω σήματα μέλλοντος).¹

G. i. 458-60 is a complex sentence like each of the two Greek sentences (825-27; 858 f.) which were used in its composition. Both are conditional. The cum-clauses of G. 458 (cf. Ph. 825-26) are comparable to that in G. 438, where δύνοντι was rendered cum se condet (cf. also G. 427, 450). With the exception of this adverbial clause, Vergil gives almost an exact reproduction of the structure of Ph. 825-27: At si 458, cum que, 458 et 460; εἰ δ' 825 δ' 826 καὶ 827.

¹G. i. 456-57, a compound sentence, is not from Aratus.

In the main, therefore, the sentence structure of Vergil tallies with that of Aratus. The sentences are about equal in length. The preponderance of clauses in the Georgics is coördinate. But whether coördinate, subordinate, or a combined relationship of clauses characterizes a given sentence, this structure often reproduces the connection found in the Greek. Since, where it occurs, deviation is in the direction of simplicity, we may attribute the large number of sentences of complex relationship in G. 1. 356-460 to the direct influence of the Greek source which is so highly complex in structure. Thus, to consider conditional and temporal clauses, which constitute the bulk of subordinate clauses, the 22 sentences in Vergil contain 10 temporal clauses, 7 conditional; in the 61 sentences of Aratus, 23 clauses are temporal, 33 conditional. Twelve of Vergil's 22 sentences are free of such clauses; 24 of Aratus' 61 sentences.

Combinations of simple sentences and the structure of complex sentences are more effectively managed in the Latin than in the Greek.

CHAPTER III
COMPARATIVE ANALYSIS OF WORDS AND PHRASES

It remains to observe the correspondences and differences between Vergil's phraseology and that of his source. Much of his translation is close. Again, a translation which is adequate, if not close, may involve condensation, amplification, or some slight alteration of the phraseology of the source. On the other hand, there are cases in which the poet omits some detail, resorts to substitutions for words or ideas in the original, or makes interpolations by way of independent extension.

First let us consider instances of correspondence. The following participial expressions are equivalent: *resonantia longe litora* 358-59, μακρὸν ἐπ' αἰγιαλοὶ βοῶντες 910; *ventis surgentibus* 356, κινυμένου, . . . ἀνέμοιο 915; *vento impendente* 365, ἐρχομένοιο πνεύματος 928-29; *illum surgentem* 374, χειμῶνος ἰόντος 1028; *caelum suspiciens* 375-76, οὐρανὸν εἰσανιδόντες 955; *e pastu decedens* 381, ἐκ νομοῦ ἐρχόμενα τραφεροῦ 1027; (*sol*) *ex-oriens* 438, ἀνιόντι 821; *nascentem ortum* 441, cf. νέον βάλλοντος ἀρούρας 822.

Likewise these prepositional phrases: *ex aequore* 361, ἐξ ἁλός 914; *ad litora* 362, ἐπὶ ξηρὴν 913; *noctisque per umbram* 366, διὰ νύκτα μέλαιναν 926; *Boreae de parte* 370, παρ βορέας 934; *in limo* 378, cf. αὐτόθεν ἐξ ὕδατος 947; *e pastu decedens* 381, ἐκ νομοῦ ἐρχόμενα τραφεροῦ 1027; *in foliis* 413, δενδρείοιο κατὰ φλόον 1008.

Similarly: *in sicco* 363, χερσαῖα 919; *a tergo* 367, ὀπίθεν 927; *in sicca (harena)* 389, χέρσαϊ' 950; *ex imbrī* 393, χειμω-

νόθεν 995; *stellis* 395, ἀστερόθεν 1013.

Compare also: *summa nantis in aqua* 369, ἀλδς

ἄκρον ἐπιπλώσει 922-23; *lacus circumvolitavit* 377, λίμνην πέρι αἰσσονται 944; *extulit* 379, ἔξ ἀννέγκαντο 957; *currere in undas* 386, ἐνιέμεναι ὁδάτεσσιν 943.

As in these phrases, so in the case of individual words, exclusive of connectives and particles (for which see chap. ii), exact correspondence is to be noted (i.e., in meaning, not necessarily in form, of course): *tumescere* 357, οἰδαίνουσα 909; *audiri fragor* 358, ἡχῆσσαι γίνωνται 911-12; *altis montibus* 357-58, κορυφαί οὔρεος ἄκραι 912; *nemorum* 359, κορυφαί 912; *mergi* 361, κέπφοι (?) 916; *marinae* 362, εἰναλιδῖναι 918; *Boreae* 370, βορέας 934; *Eurique* 371, εὐροιο 933; *Zephyrique* 371, ζεφύροιο 934; *navita* 372, ναυτίλος ἀνήρ 935; *grues* 375, γεράνων 1031; *bucula*, *caelum* 375, βόες 954, οὐρανὸν 955; *auras*, *captavit naribus* 376, ἀπ' αἰθέρος ὁσφρήσαντο 955; *hirundo* 377, χελιδόνες 944; *extulis*, *ova* 379, ἔξ ἀννέγκαντο, ὤα 956-57; *formica* 380, μύρμηκες 956; *arcus* 381, ἴρις 940; *corvorum*, *densis alis* 382, κοράκων 963, κολοιδῶν 963, 1026, πτερὰ πυκνά 969; *pelagi*, *volucres* 383, εἰνάλιναι ὄρνιθες 942; *umeris*, *infundere* 385, ὤμους 952, ἐβάψατο 951; *caput* 386, κεφαλῆς 952; *incassum* 387, ἀπληστον 943; *cornix* 388, κορώνη 950; *spatiatur* (?) 389, στρέφεται (?) 953; *concrescere*, *fungos* 392, ἀγείρωνται, μύκητες 976; *prospicere* 394, Σκέπτεο ἐπὶ 994 (ἔς 995); *obtunsa* 395, ἀμβλύνηται 1013; *Luna* 396, σελήνη 1015, 864; *lanae* *vellera* 397, οἷα μάλιστα πόκοισιν ἑοικότα 938; *iactare*, *maniplos* 400, μαργαίνουσai, φορυτῶι 1123; *sues* 400, σύες 1123; *nebulae* 401, νεφέλη 989; *recumbunt* 401, τεῖνεται 989; *seros*, *exercet cantus noctua* 403, νυκτερίη γλαυῆς ἥσυχον αἰδουσα 999-1000; *liquidus voces*, *corvi* 410, cf. ἥσυχαι κρωγμῶν πολύφωνα κορώνη 1001-2, κόρακες 1003; *cubilibus* 411, κοί-

τοιο 1005; nescio qua 412, τις 1006; obscuro cornu, nigrum aëra 428, παχίων . . . ἀμβλείησι κεραίαις 785, φώς ἀμενηνόν 786; sol 438, ἥελίοιο 819; signa 439, σήματα 820; solem, signa 439, ἥελίωι 820, σήματα 821; maculis, variaverit 441, σῆμα 824, ποικίλλοιτο 822; nubila 445, νεφέων 835; rumpent, radii, surget 446, βάλλωσι 830, ἀκτίνων 829, ἀερθῆι 846; errare 452, ἐπιτρέχει 834; pluviā 453, ὕδατος 837; vento nimisque 455, ὕδωρ . . . ὑπνέμιος 839; lucidus, terreberē, nimbis 459, καθαρόν 825, 826, ἀνέφελος 858, περιτρομέειν 861, ὀετοῖο 861; dulces Musae G. 11. 475, Μοῦσαι . . . μειλίχιαι 16-17.

Thus we see that nouns constitute the preponderance of these equivalents. In addition to these, several participial and prepositional phrases, an occasional adverb and a few adjectives undergo direct transfer. When purely descriptive epithets occur, they are often found to reproduce the words of the source. Thus: insidiis noctis . . . serenae 426, γαληναίηι ὑπὸ νυκτί 765 and καθαρῆι ἐνὶ νυκτί 323; lucidus 459, καθαρόν 825, ἀνέφελος 826, 858; dulces Musae 11. 475, Μοῦσαι . . . μειλίχιαι 16-17. These, be it noted, are more or less stereotyped expressions.

In turning to the consideration of the differences between the Latin and the Greek, however, we perceive that not infrequently such modifiers in the source are omitted. E.g., nocturna 390, νύκτα κατὰ (νοτίην) 977; pluvia impendente iv. 191, (μεγάλου) χειμῶνος ἰόντος 1028. Other omissions include δηθά 944, θᾶσσον 957, τινασσόμενοι 969, but so numerous is this class as a whole that we shall not record them all at this point, but, in the course of what follows, will indicate those which have significance for this study.

With equal freedom, the poet adds words and phrases. Notice plumas 369, vallibus imis 374, petunt 401, praeter solitum

412, inter se 413, agricolis 429, me 456; also such words as achieve smooth transition: continuo 356, saepius 379, nec minus 393, nam 395, hoc 450. For the most part, however, such additions are adjectival:¹ aridus (fragor) 357, (stellas) praecipites 366, trucis 370, arguta (hirundo) 377; veterem (querellam) 378, improba (cornix) 388, sola (cornix) 389, putris (fungos) 392, solutos (maniplos) 399, immundi (sues) 400, (cubilibus) altis 411, rapidum (solem) 424, maxumus (imber) 429, virgineum (ruborem) 430, (emenso) Olympo 450, (caelum) profundum iv. 222, impia (gens) ii. 537.

Much more intricate processes were at work in the reshaping of the Greek verses than have been indicated in the foregoing observations. Although the result may be a close translation of the original, minute examination of details reveals innumerable alterations in forms and diction. For example, Vergil reproduces a form of the verb ἔρχομαι or εἶμι at 361, 365, 374, 381; iv. 191, without either condensation or amplification, but in only i. 365 and iv. 191 does he use the same word to translate ἔρχομαι or εἶμι. Observe his use of various Latin synonyms for a single word in the Greek: marinae 362, εἰναλιδῖναι 918; pelagi volucres 383, (λιμναῖαι ἢ) εἰνάλιναι ὄρνιθες 942; resonantia longe litora 358-59, καὶ μακρὸν ἐπ' αἰγιαλοῖ βοῶντες 910; increbrescere murmur 359, βοῶμεναι 912; veterem cecinere querellam 378, βοῶσι 947; ingeminant 411, βοῶντες 1003; strepitant 413, (βοῶσι) λιγαίνονοισιν 1007; revolant 361, ἔρχεται 914; vento impendente 365, ἐρχομένοιο πνεύματος 928-29 (cf. pluvia impendente iv. 191, χειμῶνος ἰόντος 1028); illum surgentem 374, μεγάλου χειμῶνος ἰόντος

¹For addition of a verse or more, cf. chap. i; of particles, chap. ii.

1028; e pastu decedens 381, ἐκ νομού ἐρχόμενα τραφεροῦ 1027; plu-
viam vocat 388, χεῖματος ἐρχομένου 950; sub lucem 445, ἐπερχομέ-
νης ἡοῦς 827. At si virgineum suffuderit ore rubore 430 (ampli-
fied by rubet 431, and balanced by rutilo . . . igni 454), ἔρευ-
θομένης 803; colores 452, ἔρευθος κτλ. 834; igneus 453, τὰ δ'
ἐρεύθεα 837.

Somewhat different is the case of ingens arcus 380-81,
διδύμη ἴρις 940. An inquiry into the interpretation here satis-
fies us that the same sign is referred to by both poets, although
one refers to the rainbow as διδύμη, the other as ingens. Regard
for the sound of the verses when read aloud would amply justify
ingens here, for it is found in assonance with terens, decedens,
densis.

Nor was the whole story told when the omission of (νύκτα
κατὰ) νοτίην 977 and μεγάλου (χειμῶνος ἰόντος) 1028 was noted, at
G. i. 390 f. For, in the case of the former, a glance not at the
word alone but at its context shows a real compensation for the
omitted adjective of the source.

ne nocturna quidem carpentes pensa puellae
nescivere hiemem, testa cum ardente viderent
scintillare oleum et putris concrescere fungos.

Here the situation is satisfactorily established by hiemem, the
very connotation of which makes νοτίην superfluous. But putris,
which has no equivalent in the source and is a pure addition,
does contribute to the important element, namely, the sign.
Through this addition, fungos, the sign, placed in an emphatic
position, i.e., at the end both of the verse and of the thought
unit, receives increased weight as well as becoming more readily
and definitely visual.

In the second example, it is true that μεγάλου is omitted,
unless it is felt that the connotation of impendente embraces this

as well as the *ἰόντο* idea. But the interesting thing here is the occurrence of maxumus parabitur imber G. 1. 429, where the parallel passage of the source offers no equivalent! This may, of course, be considered no more than a coincidence, or maximus imber may be taken to be a commonplace, and consequently nothing extraordinary may be perceived in this situation. Yet so many analogies are found elsewhere that a transfer, whether consciously or unconsciously performed, may be suspected.

Not only does Vergil make substitutions of this kind, which are compensatory in nature, but he occasionally translates by means of an adjective something quite differently expressed in the source. Compare: *aëriae grues* 375, *ὄψοϋ* 1031; *laeti* 412, *χαίρειν* 1006; *obtunsis cornibus* 433, *ἀμβλείησι* 785; *varios* 452, *ἄλλοθεν ἄλλα* 835; *caeruleus* 453, *ἡ εἴ που μελανεῖ· καί τοι τῷ μέν* 836.

Observe too that Vergil, often in keeping with his source, employs mythological terms which have become synonymous with certain elements of nature, or typical of certain recurrent human situations. Thus: *Boreae* 370, *Eurique* 371, *euros* 453, *Zephyrique* 371, *Luna* 396, *Iuppiter (sky)* 418, *austriis* 418, *auster* 462, *Phoebe* 431, *notus* 444, *Olympo* 450, *aquillone* 460.

A further extension of this type of alteration finds expression in the designation of the particular locality traditionally connected with certain products, occupations, or characteristics. Occasionally this is substituted for the product, occupation or characteristic itself, sometimes it is added in the form of an adjective. Compare with *δύω πόλοι* 24, vs. G. 1. 240-43:

mundus, ut ad Scythiam Rhiphaeasque arduus arces
consurgit, premitur Libyae devexus in austros.
hic vertex nobis semper sublimis; at illum
sub pedibus Styx atra videt Manesque profundī.

Note also the "localization," which is pure addition, at G. 383-84:

iam variae pelagi volucres et quae Asia circum
dulcibus in stagnis rimantur prata Caystri.

"Localization" is but one form of a process characteristic of Vergil's treatment of his source, i.e., using the specific rather than the general term. For example: grues 375, γεράνων 1031, where the concreteness of the source is kept, rather than the equivalent of such generalities as occur frequently in the source, like λιμναῖται ἢ εἰνάλιαι ὄρνιθες 942. Contrast also navita 137, τις ἀνδρῶν οὐκέτ' ἐόντων 373 (but cf. δὴ τότε τις πελάγει ἐνιδεΐδισε ναυτίλος ἀνὴρ, μή κτλ. 935), ipsius in voltu 452, οἱ 834; euros 453, ἀνέμοιο 837; Styx . . . videt 243, (οὐκ) ἐπίοπτος 25.

In pursuing this aspect of Vergil's technique we must not overlook the fact that occasionally his version tends, on the other hand, to the general rather than the specific. Consider: pluvia ventisque 434-35, ἡδὲ νότῳ . . . ἢ ὕδατος 787; in 434-35, be it noted, Vergil departs from the accuracy of information presented in the corresponding Aratus verses: varios . . . colores 452, εἴ τί που ἡ οἱ ἔρευθος ἐπιτρέχει 834.

Nor must we pass over that manner of expression, which, in a category by itself, is known as purely "poetic." Here we have imaginative, often bold, expressions which are peculiar to poetry. Compare the following: testa ardente 391, oleum 392, λύχνων φάος 978; largos rores 385, ποταμοῖο 951; plena voce 388, παχέα κρώζουσα 953; et cum se condet in undas 438, δύνοντι 821; emenso cum iam decedit Olympo 450, ἐσπερίοις σήμασι 890; at si virgineum suffuderit ore ruborem 430, ἔρευθομένη 803.

Nowhere is this free, poetic style used to better advantage than in designations of time, as in Vergil's expressions for "sunrise" and "sunset." (Cf. G. i. 438, 446-47, 450.)

Forms no less than diction undergo changes in the course

of translation. Thus we find a substantive in the singular number translating one in the plural in the source. Compare: *formica* 380, *μόρμηκες* 956; *obscuro cornu* 428 (where, of the moon, the plural is much more to be expected), *παχίων* *ἀμβλείησι*· *κεραφαίαις* 785.

Even more common is the occurrence of the plural, both where the singular is more to be expected and where, as for sense, it is a matter of indifference. Compare: *ventis* 356, *ἀνέμοιο* 909; *tectis* 379, *ὀχῆς* 956; *nebulae* 401, *νεφέλη* 989; *cubilibus* 411, *κοίτοιο* 1005; in *foliis* 413, *δενδρείοιο* κατὰ φλόον 1008; *pluvia ventisque* 435, *ἡ ἐ νότωι* *ἡ ὕδατος* 787; *nimbis* 459, *ὕετοιο* 861.

Another characteristic change is shown in the use of the positive degree of *et saepe* 411 in place of *πλειότεροι*, (*ἀγεληδόν*) 1005, which illustrates Vergil's avoidance of the comparative. Likewise, *certissima signa* 439 rather than *μᾶλλον* *ἐοικότα* *σήματα* 820, while possibly influenced by the superlative, *αὐτὸν ἐς ἡέλιον* (*τοῦ γάρ σκοπαί εἰσιν ἄρισται*) 833, shows the poet's aversion to the comparative.

Numerous deviations also appear in the use of verb forms. We note at least a dozen substitutes for participles of the source: *increbrescere murmur* 359, *βοώμεναι* 912; *clamoremque ferunt* 362, *φωνῇ* *περιπολλὰ λεληκώς* 914; *currere in undas* 386, *ἐνιέμεναι ὕδατεσσιν* 943; *plena voca* 388, *παχέα κρώζουσα* 953; *pluviam vocat* 388, *χείματος ἐρχομένου* 950; *lactare maniplos* 400, *φορωτῶι* *ἐπι μαργαίνουσαι* 1123; *exercet cantus* 403, *ἤσυχον αἰείδουσα* 1000; *ingeminant* 410, *βοοῶντες* 1003, *κεκλήγῶτες* 1004; *maxumus parabitur imber* 429, *χειμῶνος συναγειρομένοιο* 793, or *ἡ ἐ νότωι* (*ἀμβλύνετ'*) *ἡ ὕδατος ἐγγύς ἐότος* 787; *comprenderit* 428, *ἔχουσα* 786; *medioque refugerit orbe* 442, *κοῖλος ἐειδόμενος* 828; *sub lucem* 445, *ἐπερχομένης ἡοῦς*

827; *densa inter nubila* 445, ἑλκομένων νεφῶν (ἐρυθαίνεταί) 835.

In comparison with Aratus, Vergil uses imperative forms and admonitory verbs in general rather sparingly. In the compass of some 250 verses (Ph. 750-1000), there are over twenty-five, making an average of over one in every ten verses. Σκέπτεο alone occurs six times (778, 799, 832, 880, 892, 994); occasionally variation takes the form of εὖ δὲ μάλα χρῆ ὀράαν 995-96, or of οὖ σε χρῆ περιτρομέειν 860-61; and a sequence like that in Ph. 973-85 is not uncommon: μηδὲν ἀπόβλητον γινέσθω μηδ' μηδ' μηδ' μηδ' μηδέ λελαθέσθαι μηδέ ἀλλ' δόκευε. Contrast with this the corresponding Latin in which the expression takes such a turn as to eliminate most verbs of admonition and the closest approximation to an imperative is si respicies 425, and forms in the second person future: videbis 365, δειδέσθαι 929, videbis 455, prospicere et poteris cognoscere 394, Σκέπτεο ἐπί 994, terrebere 459, σε χρῆ περιτρομέειν 860-61. Otherwise the poet uses such substitutes as:

*sol quoque et exorians et cum se condet in undas,
signa dabit; solem certissima signa sequuntur* (438-39),

where Aratus employs the didactic μελέτω 819; *profuerit meminisse magis* 451, μάλλον ἐπίτρεπε 890; *videmus* 451, σκοπαί 833 (but with a counterpart in Aratus' expression, πάντα γὰρ οὕτω ἐκ Διὸς ἄνθρωποι γινώσκομεν 768-69). Note also *speculamur* 257, ὥρων 13. Even where Vergil does become didactic he avoids periphrastic forms.

A unique deviation occurs at 456 with an introduction of the first person singular, not in the form of a verb, but in the pronoun me.

One more change in the verb form appears in the active ille variaverit 441 taken from the passive μή οἱ ποικίλ-

λοιτο κύκλος 822-23.

This last is also an example of another striking contrast between Vergil and Aratus in the use of verbs. The Latin poet repeatedly uses an active, personal form of the verb in connection with subjects normally considered inanimate: *nux* *ramos curvabit* 188, πρῖνοι μὲν θαμινῆς ἀκύλου κατὰ μέτρον ἔχουσαι 1047; *Styx* *videt* 243, δῶα πόλοι ἀμφοτέρωθεν ἄλλ' ὁ μὲν οὐκ ἐπίοπτος 24-25; *omnia plenis rura natant fossis*, an addition, 371-72; *cornix pluviam denuntiat* 388, ὕδατος ἔστω σήματα μέλλοντος 836-37; *sol* *signa dabit* 438-39, ἡελίωι σήματα κεῖται 820; *sol* *cum referetque diem condetque relatum* 458, βουλύσιος 825 εἰ δύνωι δ' 826 ἐπερχομένης ἡοῦς 827.

A comparison of Vergil's phraseology with that of his source reveals constant variation. His paraphrasing often entails an amplification of the Greek expression. As distinguished from insertion in the Latin of a word not taken from Aratus, this means the rounding out of a given word or phrase to an expression which is equivalent in meaning, but more ample in form. For example: *freta ponti* 356, θάλασσα 909; *praecipites caelo labi* 366, ἀίσσωνι 926; *increbrescere murmur* 359; *flammarum longos* *tractus* 367, ῥυμοί 927; 368-69, an expansion of *Ph.* 921-22; 370-73 follows *Ph.* 933-35, but with additions; *veterem* *cecinere querellam* 378, βοόωσι 947; *agmine magno* 381; *largos rores* 385; *plena voce* 388; *solis* *occasum servans* *noctua* 402, is a descriptive addition (cf. ὄρηι ἐν ἑσπερίῃ 1002); *presso guttore* 410; *aut quater* 411; *dulcedine, laeti* 412, χαίρειν 1006; *luna, revertentes cum primum colligit ignis* 427, σελήνην εὐθὺς ἀεζομένην 780-81, μηνὸς ἐφεσταότος κε πύθοιο 782; *at si virgineum suffuderit ore ruborem* 430, ἐρευθομένηι 803; *et cum se condet in*

undas 438, δύνοντι 821; medioque refugerit orbe 442; emenso cum iam decedit Olympo 450, ἐσπερίοις σήμασι 890; 240-43 is an extension and elaboration, by repetition and by addition of epithets, of Ph. 24-26; ipsius in voltu 452; cum referetque diem, condetque relatum 458.

Condensation of expression is even more prominent a feature of Vergil's handling of the Greek than is amplification. As condensation of the material in the Phaenomena was an important factor in the composition of the paragraph and sentence, so compression in the matter of phraseology plays a significant role. In the comparative analysis of the larger units, we have seen the substance of clauses in the Greek reduced to a single word or phrase in the Latin.¹ But phrases, even more frequently than clauses, are embraced by a single word; e.g., hiemem 391, ὑπὸ χειμάτος ὄρην 977. This word, however, is usually an adjective or adverb: nocturna 390, νύκτα κατὰ νοτίην 977 (cf. p. 40 on omission of νοτίην). Densa inter nubila 445, not only does away with the participle, but in so doing results in omission of an unnecessary verb: cf. ἐλκομένων νεφέων 835. Densa, too, neatly does away with superfluties: cf. εἴ που μελαινεῖ 836. Pallida 446, supplants ἀκτίνων κεχρημένος 846. Although G. 453 is an adequate translation of Ph. 836-37, it is a further example of reduction to minimum essentials: caeruleus, ἥ εἴ που μελανεῖ καὶ τοι τὰ μὲν; pluviā denuntiāt, ὕδατος ἔστω σήματα μέλλοντος (here the oft-repeated σήματα is obviated); igneus, τὰ δ' ἐρεύθεα. Also compare ludunt 363, τινάσσονται περὺγεσσιν 919; scintillare 392, αἰσώσων 979 and μαρμαίρων 980. Here one Latin word does

¹Cf. the discussions of tum 388, 395, 410, p. 29; neququam 403, p. 30; testa ardente 391, p. 28; tenuia lanae vellera 397, p. 30; cubilibus altis 411, p. 31; laeti 412, p. 31; densa 445, p. 33; caeruleus 453, p. 34.

the duty of more than one in the Greek.

In no phase of composition do the Georgics depart farther from their source than in the flexibility and changefulness of word groupings, which is in marked contrast with the more stereotyped phraseology of the Phaenomena. Agricolis pelagoque parabitur imber 429, an example of this sort of thing, contains an incongruity which results from a fusion of agris pelagoque and agricolis nautisque.¹ On the other hand, ὕδωρ . . . ὑπηνέμιος 839, in the process of adaptation, is transformed into a balanced pair,² vento nimbisque 455. Nor is an analysis of word-groupings complete without a consideration of the placement of modifiers. Since the exigencies of meter are so largely a determining factor in this respect, the point can not be pressed, but the uniformity with which Vergil places the adjective before the substantive, often with intervening words, is to be noted.³

One of the most interesting cases of variation in expression is that which results in changing the figure of speech employed in the source. Thus the metaphor, tenuia nec lanae per caelum vellera ferri 397, replaces Aratus' simile, νέφεα . . . οἷα μάλιστα πόκοισιν εἰσικότα κτλ. 938-39.

¹Cf. Hahn, p. 11.

²A striking correspondence between Vergil and Aratus at points where balance obtains in the source is not infrequently found. The following are typical: sol 438 . . . solem 439, Ἥελίοιο 819. . . . ἡελίωι 820; hic 242 . . . illum, ὃ μὲν . . . ὃ δ' 25; exercite . . . serite 210, ὦρη . . . ὦρη 742.

³Cf. citations on p. 39.

CHAPTER IV

SYNTHESIS

We shall now, in conclusion, state briefly the principles underlying Vergil's art in translating and adapting the work of Aratus. Certain structural features are disclosed in the composition. A comparison of the structure of the Latin and Greek sections has shown primarily the compactness and unity of the former, as contrasted with the diffuseness and looseness of the latter. By bringing together, through a singular telescopic manipulation of the source, like elements, frequently widely separated in the original (see pp. 8, 12-13, 15, 16, 27, 28, 29 above), by condensing material expansively treated in the Greek (pp. 6-7, 15, 16, 32), and by omitting the superfluous (pp. 27, 46), Vergil succeeds in achieving an orderly arrangement of topics (pp. 10, 11-12, 20), compactly presented.

A general tendency toward greater simplicity of structure also contributes to compactness of composition (cf. chap. II pp. 24, 30, 31, n. 2). Sentences of complex relationship show definitely the influence of the Greek (pp. 20, 21, 25, 31-34), while the simple and compound sentences, some in imitation of and some deviating from the source (p. 30), attest Vergil's willingness to accept the simple paratactic arrangement where he found it and occasionally to simplify the more complex sentences. By reducing dependent clauses of the source to phrases (pp. 31, 32, 33), or by rendering prepositional phrases simply by adjective and adverbial modifiers (p. 46), subordination is often accomplished more subtly than by means of clauses which in the source prove bulky

and tend to retard the reader's attention (pp. 24, 28). Vergil likewise avoids as cumbersome the accumulation of verb forms which is so characteristic of Aratus (pp. 27, 33-34). This is done by the process of selection, by using one vivid, concise verb which adequately conveys the idea expressed by two or more in the Greek (p. 46), and by lessening the number of verb forms of a didactic character (p. 44).

By reversing the order of its main divisions, Vergil has adapted the Greek passage to his larger plan (pp. 9-10), giving it such a logical and purposeful place that it fits in naturally with the general scheme. The remarks in introduction and conclusion and the use of linking words not only serve to emphasize the unity of the section but effect smooth transition (pp. 10, 11, 13).

These two features are likewise true of the composition of the paragraphs within the passage. Vergil departs from his source in introducing each with a key sentence (pp. 25-26, 30). Then by connectives (pp. 13, 18, 20, 27, 28, 31, and n. 3, 34, 38-39), significant repetitions (pp. 15, 17, 20, 23), or other technical devices (p. 29), he builds up and maintains the structural unity of the paragraph. This recurring element is to be found in the source, too, but the use of it for purposes of integration is not realized there. Vergil's application of this method is particularly effective in vss. 424 f., the continuity of which is assured by the reinstatement at intervals of the introductory conditional form (p. 18); and in vss. 393 f., also, with its negative turn of expression throughout (p. 29).

And just as the reduction in length of the original passage establishes the importance of this theme in its relation to the whole, so by selection, addition, and compression of material, a well-balanced series of paragraphs is maintained within the

section (pp. 10-11).

This sort of balance is but one aspect of a principle which distinguishes the Latin from the Greek passage. That is, although there are many evidences of balance in the Greek, balance and symmetry seem to be the very axis of Vergil's composition, the essence of his style. This tendency is responsible for the large number of pairs of words, sometimes retained from the source and sometimes formed independently (p. 47 and n. 2); balanced forms, as in the cases in which a stylistic balance in the source is retained although the expression itself is changed (pp. 27, 30, 33); a series of verbs in the infinitive mood (pp. 20, 27), in the perfect tense (pp. 26, 28). This desire for balanced symmetry is extended even to the reiteration of ideas (pp. 32, 33). Structural elements are made to conform, too, as in the balance of cum-clauses (pp. 25, 33); the series of confirmatory clauses at vss. 432, 443, 451, each introduced by nam, in emphatic form (pp. 32-34). Again, the conjunction neque is repeatedly used (vss. 426, 433, 457) to assert the negative turn, non being used but once in the section, near the end, at vs. 456 (pp. 32 f.).

This desire for symmetry likewise explains the curious reversal of expression or meaning which Vergil uses not infrequently in adapting his source, and which manifests itself in different ways. The change always results in bringing the structure or sense of a given sentence into harmony with surrounding negatives or positives as the case may be. At vss. 395-96, 399-400 (pp. 29, 33) where the negative form of the source is retained, but the sense is reversed, the sign is one of four weather in the Phaenomena, of fair weather, in a passage on fair weather signs, in the Georgics. The same purpose is served by reversal in the opposite direction, at vs. 441 (p. 33), where the form is

changed from negative to positive, to fit the positive sequence in the Latin, while the sense is changed from positive to negative so that a fair-weather sign of Aratus may be incorporated in a paragraph devoted to prognostications of foul weather. The most curious illustration of this principle at work appears at G. 1. 393-400 (p. 29). It also accounts for the negatives at G. 1. 373, 390-92 (pp. 26, 28), retained from the source; and those added at vss. 424-26 (p. 32). Note also G. 1. 438-58 (pp. 16-17), and G. 1. 441-44, 445-49 (p. 33).

Vergil's inclination toward uniformity of structure also explains his deviation from Aratus at G. 1. 424-26, where instead of following the paratactic arrangement, this dominating tendency toward balance and symmetry is accentuated by variation (p. 32). The latter is the handmaiden of the former, serving as a foil and a relief. Aware of its stylistic value, Vergil gives full play to its many possibilities. He avoids excessive use of any particular form, so that the number of present participles is less conspicuous in the Latin than in the Greek (pp. 27, 33-34); prepositional phrases are not so abundant; there is a greater variety in the person of the verbs used (p. 44); freedom in the use of the singular and plural number lends flexibility and novelty to the composition as well as meeting the demands of meter and euphony (p. 43). It is quite as much through diversity of expression and departure from the stereotyped manner of instruction as by actual omission that he escapes the "laying-down-the-law" tone of his less imaginative source (pp. 22, 44). The force and psychological effectiveness of plain, direct imperatives as compared with the ponderous, insistent drumming and monotonous flatness of repetition of periphrastic phrases is manifest.

Inconcinnity of expression, such as that noted in agrico-

lis pelagoque 429, is a further application of this principle (p. 47). It is this type of fusion of unlike elements in smaller units of expression which provides most of the variety that obtains within the larger units where symmetry is the rule. And perhaps this is also the principle underlying Vergil's keenness to the possibilities of word order, noticed in connection with the placement of modifiers (p. 47), and brought into full play in the effective juxtaposition of direct opposites, as in acies obtunsa 395, which translates almost word for word ἀστερόθεον καθαρόν φάος ἀμβλύνηται 1013; and prompts the verse structure: angustum ingens (p. 12). Structural variation of a different type is employed at G. 1. 441-56, where in a sequence of clauses which are predominantly conditional, the substitution of temporal clauses, essentially conditional in value, gives relief (p. 29).

A less obvious case in which nicety of style introduces variation and at the same time is conducive to symmetry appears at G. 431 f. Here the lack of connectives where they might be expected (i.e., in 431, 453), a striking omission in a passage so well supplied with links, attracts one's attention. How could a common element be more clearly italicized? How deftly, yet surely, has the poet bound the following:

431. ventus erit; vento semper rubet aurea Phoebe.
453. caeruleus pluviam denuntiat, igneus euros.

A ruddy sun and a ruddy moon (Vergil attributes to each the appropriate degree of intensity!) alike indicate wind. In this passage, which runs on and on and on with cumulative connectives, the stop created here by their absence is striking, if not dramatic, and points out the coincidence as emphatically as an exclamation or a gesture could do. Further, this device leaves the poet free to complete variation in expression, where one artistic

enough to desire balance at this point, but not so artistic as Vergil, might have done the more obvious thing, letting the diction turn the trick, as for instance by using Phoebe 431, Phoebus 453.

The structure of this section as a whole, then, is based upon principles of unity and symmetry, as a result of which the composition is compact, orderly and strong in character, devoid of much of the confusion and diffuseness which obfuscates the Phaenomena. Aratus, it is true, presents a far greater bulk of information but this is not the reason for his greater degree of confusion. One can discover (cf. chap. 1) definite headings, but in the expansion of these headings, details so run riot that clouds, rain, and sunshine play in and out as illusively as April showers, overtake the reader as suddenly as August thunder-storms, leaving him with the feeling that every sign has been accounted for, but with no clear impression of the general indications. Vergil's elaboration of the theme, on the other hand, falls into lucid and pleasing patterns, and may claim superiority from the point of view of its plan, if not in the exhaustiveness of scientific data.

As the salient features of its structure have been seen to distinguish this portion of the Georgics from its source, so there is a decided difference in spirit. It is the sphere of poetry to evoke feeling rather than thought, and this is realized more fully in the Georgics than in most earlier didactic poems. It is accomplished by consciously directed human appeal.

With the true instinct of the poet, Vergil has treated his material in such a way as to impart imaginative and emotional appeal. No other element contributes more to the vitality of his composition than the diction. To him, words are most surely

alive.¹ His versatility in the use of synonyms has been contrasted with the practice of Aratus (pp. 39 f.), as also his preference for the specific rather than the general term (pp. 42 f.). Knowing the power of the exact word to call up a sharp and immediate picture in the reader's mind, the poet was inclined to retain concreteness where he found it in the source (p. 42) or render by concrete equivalents such generalities as not infrequently occur there. This attempt to be explicit is the motive prompting the poet to amplify, as he often does, the expression of the source (p. 45). Almost invariably this results in a word or phrase or thought-unit rounded out to a more explicit concept. Frequently this amplification is in the form of adjectives, adverbs, and adverbial phrases which add color and feeling (pp. 38 f.). The modifiers that have been retained from the source are largely of a purely descriptive kind (p. 38). Where modifiers are not translated literally but undergo changes of different kinds, a number of considerations must be taken into account as responsible for the alteration (pp. 39 f.). But constant alertness to the more expressive word is quite as important in this respect, as is desire for condensation and variation, or attention to sound-effects in the verse. By the free retention of epithets found in the source (pp. 37-38), even though this be with varying degree of fidelity, Vergil shows the value he places on this means of making his subject matter vivid and picturesque. By expressing with an adjective that which the source brings out in another way he

¹ Dryden has left eloquent testimony to this fact: "Virgil, above all poets, had a stock, which I may call almost inexhaustible, of figurative, elegant, and sounding words.--(He) call'd upon me in every line for some new word, and I paid so long, that I was almost bankrupt: so that the latter end must needs be more burdensome than the beginning or the middle: and consequently, the Twelfth Aeneid cost me double the time of the First and Second" (as quoted by Rand 124 n.).

often succeeds in attaining additional effect, by establishing an essential coloring, mood, or feeling (p. 46).

Not only by means of well-chosen adjectives and adverbs, and by favoring the specific and concrete does Vergil put life into his pictures, but also by a method which comes under both of these headings, namely the designation of the particular locality traditionally connected with certain products, occupations, or characteristics. The imaginative and emotional value of this type of concreteness is very great, due to the association of ideas thus aroused. Such allusions add dignity as well as color. (Cf. pp. 41-42.)

Of similar associative value is the use of mythological terms which have become synonymous with certain elements of nature, or typical of certain recurrent human situations (p. 41). The extent to which this feature appears varies from epithets only to ornamental digressions of considerable length. In most of these elaborations, Vergil follows his own poetic taste rather than the suggestion of his source.¹

Another device artistically employed by Vergil is his occasional method of description not by direct portrayal but by implication, or by description of the effect produced. Stylistically, this is a form of variation of treatment, and, practically, it has the suggestive force of that which is impressionistic rather than direct and concrete. The suggestion of smell thus produced at G. i. 376 has its origin in the Greek (cf. Ph. 954-55). It is used independently of Aratus, however, at G. i. 372-73,

¹ Each of the additions (p. 7) is of such poetic character as to arouse the imagination, by association, and thus serves to elevate the treatment of the theme: 383-84 enhances the effect by the mention of far-distant places; 415-23 carries the mind into the realm of philosophy; 398-99, 404-9, 447 introduce favorite myths.

where, in contrast with the source which simply declares that the sailor feared the storm, the Latin implies the same by describing the effect; and at G. 1. 436-37, which, an addition, describes the effect as well as making a statement of the fact.

Considering the numerous similes in our portion of the Phaenomena, one might expect to find more of them transferred to the Latin. But it is typical of Vergil's comparatively vigorous style that, in one case at least (G. 397), he has replaced a simile with a metaphor.

The features next to be considered are evidences of direct and tangible human appeal. While Aratus attempts a complete treatise on astronomy and weather signs, and Varro does the same for agriculture and husbandry, Theophrastus for horticulture, Aristotle for bee-keeping, Vergil, on the other hand, dips into each of these subjects, and, sensitive to what will strike sparks of emotion in the reader, selects only special phases for treatment (pp. 5-6).

Then this comparatively dry and informative material undergoes a transformation; it is brought to life, humanized. Heavenly bodies, birds and creatures are all seen in action; elements are endowed with life, creatures with human attributes (p. 45). What is more, mankind is constantly made aware of this activity on the part of the natural world, as it crowds in upon his consciousness. Appeal to the senses engages the reader's emotional and imaginative sympathies throughout.¹ Vergil, like Aratus, makes vivid appeal to the sense of sight.² (Cf. carpentes puellae 389-91, stellas praecipites 365 f.) The sense of sound is second only to that of sight: the description of the tempest G.

¹Cf. Gauger, Schumann, Roiron.

²Roiron, p. 540.

1. 356-59;¹ the famous bird-passage G. 1. 373-91,² which brings in the sound of the flapping of wings, splashing in the water, and various calls and cries; and the croaking of the frog G. 1. 378. Each of these is taken directly from Aratus, whose passage is full of sound effects. Some of these are charming and constitute one of his few outstanding poetic qualities. Occasionally, too, the sense of smell is played upon. Except for the suggestion of smell at G. 1. 376: suspiciens patulis captavit naribus auras, which follows Aratus, this feature is an addition of Vergil's own. Thus in G. 1. 188, ramos . . . olentis has no equivalent in Ph. 1047-50, which it otherwise resembles.

But Vergil fuses natural and human elements even more closely. Not only are the various activities and aspects of nature the object of interested observation, but they are of vital importance to the well-being of mankind. Time and again does the poet directly relate his theme to human experience (e.g., agricolae 355, quibus in patriam vectis 206, navita 372, carpentes . . . puellae 390, agricolis pelagoque 429; cf. p. 17). This trait, which is not in evidence in the passage of Aratus with which we are immediately concerned, is, however, not uncommon in verses subsequent to Ph. 1026. It serves a double purpose in this portion of the Georgics, since it does much to connect and preserve the relationship between this section and the work as a whole, as well as to give it greater interest and significance by integrating it with human experience.

Vergil is not content with making his natural world come to life in itself and asserting its significance for mankind in general, but he intrudes himself here and there, adding the personal touch of his own testimony, sentiment or advice (p. 44).

¹Roiiron, p. 145.

²Ibid., pp. 295-96.

Nor is the poet unconscious of his audience. The occurrence of the second person, both in verb and pronoun (p. 44), although prompted by the admonitory tone of the passage and influenced by its frequent, stereotyped occurrence in the Greek, is not wholly didactic in the Georgics, in the way in which it enlists the reader's attention and application.

By contrasting Georgics i. 356-460 with its source, it has been possible to suggest the principles underlying Vergil's translation and adaptation; the technique by which, through well-rounded units both large and small, he achieved harmony, solidarity, and dignity of composition; and the devices which, skilfully employed, transmuted what might have been and actually was in others dry and didactic into something rich and living, into poetry in the truest sense of the word.

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APPENDIX

The Loeb texts presented on the following pages for the convenience of the reader differ somewhat from those of the Jahn and the Maass editions which were used in this study (cf. Introduction, p. 3).¹ The Latin readings vary only in that austri 354, austris 418, notus 444, euros 453, aquilone 460, are not capitalized by Jahn. With this we agree, since such personification as is felt in Boreae de parte 370, Eurique Zephyrique tonat domus 371, is lacking here, and it is well to preserve the distinction. Of the differences in punctuation and structural demarcation, it is important to note that we agree with Jahn in concluding a sentence at nidos 414. Not only does the interpretation of the passage, per se, indicate the end of a thought-unit at this point, but further weight is given to this opinion by the fact that vss. 410-14 follow Aratus, while vss. 415-23 constitute an addition. Also in accordance with Jahn are paragraphs initiated at 370 and 438. The subsequent verses, in each case, are part of a larger unit (i.e., signs of foul weather; and heavenly prognostications, respectively); but a break is justified by the division of each of these parts into paragraphs on signs of wind 356-69, of rain 370-92; signs of the moon 424-37, of the sun 438-63.

No important structural differences are to be noted in the Loeb and the Maass editions. There are many variations in the reading, but only those which essentially affect the interpretation are recorded here. Italics in the variant readings below designate the text of Maass:

κελεύων, κελεύει 775; ἀμβλυνται, ἀμβλύνετ' 787; πέλονται, πέληται 806; εἴη, εἴης 827; καὶ, εἰσιν 833; εἴ τί οἱ ἦπου, ἢ εἴ που 834; ἀμφοτέροις, ἀμφοτέρων 838; καὶ ἔτ', ταί τ' 859; εἰνάλιος, εἰνάλια 911; γίνονται, γίνονται 912; ποτέονται, ποτέωνται 916; ἴωσιν, ἔωσιν 924; τοῖς δ' ὀπιθεν, τοῖς ὀπιθεν 927; ὀπολεῦκαίνονται, ὀπολεῦκαίνονται 927; ἦν δὲ καί, εἰ δὲ κεν 929; ἄλλοι δ' ἐξ, ἄλλοις, ἐξ 930; ἡέρσῳ, ἡέρσαι' 950; ὁμοῖον, ὁμοῖα 965; τιναξάμενοι, τινάσσονται 969; σκοτίνην, νοτίνην 977; νησαῖοι, νησσαῖοι 982; κρῶξ, κρωγμόν 1002; μόνοι μὲν, μουνούμην' 1003; πλειότεροι δ' ἀγεληδόν, πλειότεροι, ἀγεληδόν 1005; ἐπιξουθαί, ἔτι ξουθαί 1028.

¹ The columns of text on the following pages are so arranged as to follow the order of the Latin verses, i.e., G. i. 351-465 appear on pp. 65-68 consecutively. Although this alters the arrangement of the Greek verses, the natural sequence of Ph. 773-1043 may be observed by turning to pp. 67, 68, 65, 66 in order.

SUPPLEMENT

The following supplementary material consists of citations from Varro, Theophrastus, and Aristotle which, based on an analytical comparison with Vergil's *Georgics*, tend to confirm the artistic principles manifested in the translation from Aratus (cf. pp. 3-4). The page and topical headings of each paragraph refer to the principles thus substantiated and the foregoing pages of the thesis where they are treated. For the sake of brevity, citations are given in abbreviated form: e.g., ii. 256 refers to the *Georgics*; Ph. 773 indicates the *Phaenomena*; ii. 7. 12 refers to Varro's *De Rebus Rusticis*; h. ii. 7. 12, Theophrastus' *De Plantis Historia*; c. ii. 7. 12, Theophrastus' *De Causis Plantarum*; 626 a 9, Aristotle's *De Animalibus Historia*.

Page 6, Condensation.--Treatment in other than the Aratus sections shows the ultimate in condensation: *quis color* ii. 256 / several clauses on colors of soil, i. 9. 5 & 7; *impende laborem* iii. 74, embraces Vergil's brief disposal of "care of colts," to which Varro devotes several paragraphs, ii. 7. 5 & 6; *florentis herbas* iii. 126-27 / an elaborate list of flowers, etc. ii. 1. 17; *usum agrestem* iii. 163 / an idea developed at length in i. 20. 1-3; *hortare* iii. 164, is a contraction of many ideas, i. 20. 2; *felicitas* ii. 127, alone, summarizes the effect of the fruit as explained at length, with three illustrations, in h. iv. 4. 2; *dirum* iv. 246, compactly implies what Aristotle says of diseases being brought to the hives, 626 b 17-19.

Page 11, Order of ideas.--That Vergil should freely manipulate his source in the matter of sequence of words, phrases, clauses and even sentences is to be expected. Often, as at i. 351-70 (cf. p. 11), the reason is apparent; sometimes it is not. Striking examples of his following his source exactly may be found in the sequence of ideas in i. 7-8 / i. 1. 5; i. 63-70 (with additions) / i. 27. 2; i. 73-76 / i. 44. 3 (alternative in both) and i. 23. 1, 2, 3; i. 82-83 / i. 44. 3; i. 284-86 / i. 37 / iii. 54 / ii. 5. 7; iii. 163-74 / i. 20. 1-3. The thought sequence of iv. 51-57 follows that of 625 b 18-31 with an elaboration of each idea; and iv. 197 retains the phrase sequence of 553 a 17-21.

But cases in which the order of the source is retained are the exception. The order of ideas in i. 22-23 is just the reverse of that in i. 1. 5. In the following the order, in the main, is kept; but selection, additions and change in diction make a difference: *Glandes atque arbuta* i. 147-49 / *glandem, arbutum, mora, poma* ii. 1. 3-4; (1) *oleo aut* (2) *vilibus pomis* i. 273-74 / (1) *a) oleum aut b) vinum itemque* (2) *c) frumentum aut d) quid aluit*, ii. 6. 5. (Notice that Vergil retains each of the two general categories, and in the same order. He keeps, too, the alternative which appears in Varro, but its position--that of *itemque* in Varro--changes the sense.) (1) *gravidae fruges* (2) *Bacchi Massici umor* (3) *oleae* (4) *armenta* ii. 143-44 / (1) *far, triticum* (2) *vinum* (Falerno) (3) *oleum* (4) "*arboribus consita Italia, ut tota pomarium videatur*" i. 2. 6; good arrangement makes a field: (1)

more attractive to view, (2) affords a better chance to the trees by a) giving equal strength to all and b) by giving room for growth, to all ii. 285 / (1) more attractive, (2) more productive, (3) more valuable and saleable, i. 4. 2.

Typical changes in order and items occur in the treatment of i. 160-66 / i. 22. 1, 3; i. 186 / i. 51. 1; iv. 30-32 / iii. 16. 12, 13; iv. 239-41 / 625 b 32--626 a 7. Especially interesting from the point of view of structure is iii. 143-45 in which the material is the same as in ii. 5. 11 & 14, but is shaped and organized according to the poet's own artistic sense: (1) saltibus (2) a) flumina . . . et b) viridissima, etc. (3) "shelter-and-shade," iii. 143-45 / (1) nemoribus (2) a) viridibus et b) aquosis (3) "shade," ii. 5. 11 & 14. Typical, too, is iii. 245-49, 264-65 / 571 b 12-30.

Page 23 n., Telescopic treatment.--Such blending and telescoping is the regular thing in passages reflecting Varro, Aristotle and Theophrastus, as the natural result of condensation of the source material into smaller compass. There indeed the poet does not necessarily follow a consecutive passage, but uses for the development of one idea material from two or more, and sometimes widely separated, sections which deal with the matter in hand.

Page 25 n., Points of compass.--Compare G. iii. 275-79, in relation to 572 a 15-18: θεῶν δ' οὔτε πρὸς ἑω, οὔτε πρὸς δυσμᾶς ἀλλὰ πρὸς ἄρκτον, ἢ νότον. The expression here corresponds closely, even to the observance of the same order; but Vergil omits the West, adds Caurumque. Notice Zephyrum a few verses above, however (iii. 273); and that neque solis ad ortus iii. 277, approximates, in connection with the East, Aristotle's expression for the West: οὔτε πρὸς δυσμᾶς.

Pages 28-29, 33 (cf. p. 50), Negative retained.--Ignorant ne ii. 268 (οὐκ μὴ ἀγνοεῖν c. ii. 4. 8) is a negative clause of purpose followed by quin 269 and a negative plus a positive clause of purpose, in 270. Again, non Eure neque Solis ad ortus iii. 277 (οὔτε πρὸς ἑω 572 a 18) preserves the balance of the negatives which occur at intervals throughout the section. The same is true of the series in iv. 198 ff.: neque, nec 198, verum 200, neque 207, non 210 (οὐ οὐδ' ἀλλὰ 553 a 17-21).

Pages 32 f. (cf. p. 50), Negative vs. positive.--Reversal of the source in this respect, and again for the sake of symmetry, is seen in: tempore non alio iii. 245 / περὶ τὸν καιρὸν τοῦτον 571 b 28-29, where the sequence is negative (cf. nec 246). Likewise: neque enim plus septima iv. 207 / ἐνταῦθα δὲ ἐπτά 554 b 6 fits into a negative scheme (neque, nec iv. 198, nec 211). Similarly: neve flagella Summa pete aut summa defringe ex arbore plantas ii. 299-300 is cast in the negative, in contrast with c. iii. 5. 3 which is positive, to maintain the symmetry of a striking negative sequence (neve 298 neve neve 299 neu 301 neve 302 non 312). This case is interesting because, while the form of expression is changed for an obvious reason, the sense is left essentially the same, i.e., Vergil instructs the husbandman not to take his cuttings from the tree top, while Theophrastus advises that cuttings taken from the bottom are better than those taken from the top.

Occasionally, too, Vergil turns the positive expression

of his source into a double negative. *Exiguus ne deserat umor* i. 70 (ad accipiendum imbrem Va. i. 27. 2; ὕγραίνειν c. iiii. 20. 2) is justified by desire for balance, when we compare it with the preceding verse:

illic...officiant....ne....hic....ne deserat

Similarly, ne nequeant superesse iii. 127 (ut vires habeant Va. ii. 1. 17; firmiores fiunt ad laborem sustinendum ii. 2. 13) where the purpose relationship of Varro is kept, and the idea as well. The double negative makes possible this latter, as well as being appropriate to the negative tone of the paragraph, seen both in the form (ne i. 70; ne iii. 127...ne 135) and in the diction (deserat i. 70; invalidi 128 negant 131 inanes 134). And no doubt it is an urge for balance with this negative clause of purpose that occasions the similar one in the following verse (ne referant iii. 128 / qui respondent ad ii. 5. 9) which again involves a change from positive to negative. Note also how et non innoxia verba ii. 129, a double negative replacing the positive, θανάσιμον h. iv. 4. 2, balances the preceding quo non praesentius ullum ii. 127. Inescapable too is the balance and strength of expression achieved by the double negative of i. 95-96 (which is repeated verbatim iv. 37-38):

-quē⁹⁵ . . . neque⁹⁵ . . . nequiquam⁹⁶

Pages 33 f. (cf. p. 50), Positive vs. negative--The wish to maintain the symmetry of a positive sequence is cause for changing from negative to positive in the following, too: Ut plus subjunctive, in a positive purpose clause, plus quamvis-clause i. 195-96 / μή γίνεσθαι h. ii. 4. 2; eniti et contemnere adulescant ii. 360-61 / ne discat pendere Va. i. 8. 6; haec audeat iii. 187-88 / ne, cum sint deluncti exterreantur ii. 7. 12.

Page 34 (cf. caeruleus, vs. 453), Condensation of clause to word.--Note the following instances in which Vergil expresses by one word the substance of a clause of Varro: herbae i. 69 / quae sunt ex ea enata i. 27. 2; vere i. 215 / cf. i.) ubi maturius frigora fiunt asperiora; 2) fabam optime in vergiliarum occasu 3) verno tempore i. 34. 2; (also vere iii. 272 / τὴν ἐαρινὴν ὥραν 573 a 30) bis gravidae ii. 150 / de capris . . . quae bis pariant ii. 3. 4; putre ii. 204 / (facile frietur, natura quae non sit cineracia neve vehementer densa i. 9. 7;) nati iii. 128 / qui ex his orti sunt ii. 5. 9; horrentem iii. 161 / i. 32. 1; cum frigidus aëra iii. 336 / quaad refrigeratur ii. 2. 11; vacua iv. 90 / quod fuget aut cum multitudine fugetur iii. 16. 18.

Page 35, Sentence structure.--The sentence structure of the Georgics is much less complex than that of Varro, Theophrastus, and Aristotle, as well. Here again, the more extensive analysis which comparison with these writers permits, throws further light on our conclusions as to Vergil's natural tendencies of composition. As might be expected, the intricacies of his sentence structure are often found to duplicate those of the "source." This is especially true of descriptive relative clauses (cf. relative clauses common to i. 6 / i. 1. 5; i. 52-53 / i. 3; ii. 204 / i. 9; ii. 226 / i. 9. 7; iii. 73 / ii. 7. 4; iii. 125 / ii. 7. 4). In the Aratus-passage, cum-clauses were seen to reproduce the source.

So also iii. 322 / ii. 2. 10; iv. 103 / iii. 16. 30. Ubi-clauses, however, are used more freely (cf. an ubi-clause, iii. 130, is used as a variation of the oft-repeated ante admissuram ii. 1. 17 and 5. 12; at iii. 144 an ubi-clause replaces the expression, locis viridibus et aquosis ii. 5. 14; at iii. 167 an ubi-clause is substituted for a condition of fact plus diebus paucis 1. 20. 2; ubi frigidus imber iii. 441 / ne frigus laedat ii. 1. 23; inde ubi iam ii. 367 / εἰθ' ὅταν c. iii. 7. 3).

An occasional purpose clause reflects a source-structure: ne . . . nequeat iii. 127 / ut vires habeant ii. 1. 17; ne . . . procumbat i. 111 / πρὸς τὸ μὴ συλλομανεῖν h. viii. 7. 4; usually, however, such a clause is resolved in some such way as ob culpam ii. 380 / ut-clause i. 2. 19.

Cum-clauses, too, tend to disappear; e.g., presso sub vomere ii. 203 / quae cum fodiat i. 9. 7; incursusque luporum iii. 407 / cum pascetur et eo venisset lupus ii. 9. 2.

Similarly quod-clauses, or their equivalent, which so often introduce reasons in the prose versions, are relatively few in the verse (e.g., quo minor iii. 319 / quod est aliosum ii. 3. 6; ne plus subjunctive iii. 389, replaces a quod-clause ii. 2. 4. In this case, Vergil's subjunctive fits into a pattern of subjunctive clauses, preserving the balance. Cf. nam iv. 35 / quod iii. 16. 17).

A series of conditional clauses, corresponding to the structure of an Aratean passage (cf. pp. 18-19 above) was seen to have been used most effectively. Generally speaking, however, conditional clauses are not common in the Georgics. Where found, they often follow the source-structure; e.g., si quando ii. 128 / δ' ἐπειδὴν τύχη τις h. iv. 4. 2; si quando iv. 228 / ὅταν 623 b 19. But an aversion to this type of subordination must account for the numerous occasions on which Vergil substitutes a different expression for a conditional or otherwise indefinite dependent clause in the source. Note: arboribus positis ii. 278 / arbusta, si sata sunt i. 7. 2; ubi-clause iii. 167 / si, fact condition, plus diebus paucis i. 20. 2; magno . . . motu iv. 68 / si intus faciunt bombum et cum intro eunt ac foras, trepidant iii. 16. 32; verse ii. 135 does not carry over the elaborate statement, cast in conditional turn, of h. iv. 4. 2; gravidae iii. 275 / ὅταν δὲ τοῦτο πάθωσι 572 a 15-16; venientum iv. 167 / ὅταν δὲ εἰς τὸ σμήνος ἀφίκωνται; 624 b 6-7; et saepe iv. 194 / ὅταν 626 b 24; semine iacto ii. 317 / ὅταν c. iii. 4. 4; verse ii. 318 has a substitute for ὅταν-clause of c. iii. 4. 4, as does ii. 324; inde ubi iam ii. 367 / εἰθ' ὅταν c. iii. 7. 3 (but notice quaecumque ii. 346 / Ἐάν δὲ ἐν ἀλμύρεϊ c. iii. 6. 3).

Page 38, Descriptive epithets retained.--See ebenum ii. 116 / ἐβένη h. iv. 4. 6; simillima ii. 131 / ὁμοίον h. iv. 4. 2; optuma ii. 205 / ἀγαθὴν c. ii. 4. 11; salsa autem tellus ii. 238 / τὸ δ' ἄλυστά c. ii. 5. 3; locum similem ii. 266 / τὴν θέσιν ὁμοίως h. ii. 5. 3; fortis . . . ramos ii. 296 / ἰσχυρόν h. iii. 16. 1; tellurem . . . rigidam ii. 316 / δὲ τῆς γῆς πεπηγυῖας; πεπηγυῖα c. iii. 4. 4; vere rubente ii. 319 / (ὁ ἀπὸ . . . ἐστὶ καὶ) ἐρσώδης c. iii. 2. 6; prima . . . aetas ii. 362 / τὸ πρῶτον c. iii. 7. 3. Notice the literal transfer, but with use of synonym: putre solum ii. 204 / μὴ παγώδη μηδὲ πυκνὴν c. ii. 4. 12; densa ii. 229 / πυκνοῦ, πυκνὴ c. ii. 4. 9; in denso . . . ubere ii. 275 / ἐν τοῖς . . . πυκνοῖς c. ii. 4. 7. Also, saevior iii. 246 / χαλεπαί 571 b 30; saevus aper iii. 248 / οἱ ὄες οἱ ἄγριοι 571 b 14.

Page 38 cont., Modifiers omitted.--Compare per terram 111. 171 / per (molliores) terram 1. 20. 2; thymum iv. 112 / (mellificium) thymum 111. 16. 14; apes iv. 285 / (dulcissimas) apes 11. 5. 5; villis mollibus 111. 386 / lana molli, villis (altis et densis) toto corpore 11. 2. 3; silvas 111. 314 / silvestribus saltibus 11. 3. 6; gramina canent 111. 325 / herba ruscida 11. 2. 10.

Pages 38-39, Adjectives added.--When comparison is made with Varro the following additional adjectives are noticed: pingue solum 1. 64, fortes tauri 65, laetis frugibus 69, exiguus umor 70, sterilem harenam 70, siliqua quassante 74, tenuis viciae 75, tristis lupini 75, glaebris inertis 94, cf. 181-86 for generous use of enlivening adjectives, intractabilis brumae 211, tardi aselli 273, vilibus pomis 274. Tenuis argilla 11. 180, dumosis arvis 180, vivacis olivae 181, dulcique uligine 184, humus laeta 184, tacitam 11. 254, sceleratum frigus 256, animum inanem 285, duos bidentis 355, luctantes iuencos 357, levis calamos 358, rasae virgae 358, fraxineasque sudas & furcasque valentis 359, uncis manibus 365-66, capraeque sequaces 374, aspera vimina 413-14, incultique salicti 415, vitiosaeque ilicis 453. Fortis iuencos 111. 50, torvae bovis 51-52, praecipuum laborem 74, fluvios minantis 77, ignoto ponti 78, vanos strepitus 79, argutumque (caput)! 80, animosum pectus 81, blando (labori) 127, invalidique (nati) 128; saltibus in vacuis, plena flumina 143-44; campum horrentem, fractis glaebris 161; usum agrestem 163; faciles animi (of calves!), mobilis aetas 165, libera colla 167, rotae inanes 170, pubi indomitae 174, fetae vaccae 176-77, dulces natos 178, turmasque ferocis 179, 212-14 are rich in added epithets which cumulatively stress the idea of separation; in sola pascua, post montem oppositum (cf. in montes frondosos 11. 5. 11), trans flumina lata, intus clausos tauros, satura ad praesepia (this last is different and more subtle, for "filled mangers" are satisfying and keep the animals content--to stay where they are), glacies frigida 298, frigidus aquarius 303-4, non cura leviores 305, miseris nautis 313; horrentisque rubos et amantis ardua dumos 315; ventosque nivalis 318, virgea pabula 320-21, (feres) laetus 320; laeta aestas, Zephyris vocantibus 322; frigida rura 324; ros gratissimus, tenera herba 326, frigidus vesper 336, greges albos 386, ferratis capistris 399, velocis Spartae catulos acremque Molossum (common-place) 405; turpis scabies, frigidus imber 441, inlotus sudor 443-44; dulcibus fluviis, pecus omne 445; tristi amurga 448. Hospitiis frondentibus arbor 11. 24, stabit iners 25, grandia saxa 26, pontibus crebris 27, lento vimine 34, trita melisphylla et cerinthae ignobile gramen 63; fractos sonitus (!) 72, pulveris exigui iactu 87, vacua in aula (cf. fuget aut cum multitudine fugetur, 111. 16. 18) 90, inglorius (drone) 94, turpes 96, durum turpes saporem! 102, contusos animos (cf. ne deficient animum 111. 16. 34) 240, arundineis canalibus (cf. alvo 111. 16. 36) 265, insincerus cruor (cf. ex hoc putrefacto 11. 5. 5) 285.

Also: pessima tigris (571 b 1 f.) 111. 248, genus acre luporum 264, imbelles cervi 265, clarus squamis 11. 93, dulcem escam 11. 17, purpureosque flores 54, recentis exudent ceras 57-58, liquido nectare 164, lentum gluten 160, fesos (bees!) 190, tristi morbo 252.

Nigrum ebumum 11. 116-17 (cf. h. iv. 4. 6), atra

venena 130, tenui . . . sulco 289.

Pages 39-40, Synonyms.--The Greek language is so rich in words for sea and water that comparison with Aratus alone, in this field, would not give Vergil particular credit for the pleasing variety of such words in this passage. Contrast a single passage, however, with Varro, noticing the significant synonyms substituted for aqua: rorem iv. 12, fontes and stagna 18, rivus 19, umor 25. Similarly terra of Varro becomes habitusque locorum i. 52, terrae pingue solum 63-64; campum 77, arva 82, arvis ii. 180, campum iii. 161, solum ii. 204, crassaque terga ii. 236, and the highly poetic matrem at ii. 268. Glaebis i. 94 retains glaebae i. 32. 1, but glaeba of i. 32. 1 becomes aequore i. 97. Arvo ii. 24 replaces in terram, in humum i. 40. 4; quique campus ii. 185 appears for in agro i. 9. 6; humum iii. 298, for solum ii. 2. 7. Note, too, the substitutions for Varro's repeated loca: ripis fluvialis ii. 414 / sic alia quae umidum locum quaerunt i. 23. 4; silvasque iv. 53 / in silvestribus locis pascitant iii. 16. 19; tecta iv. 104 / in tecto loco iii. 16. 37; statioque iv. 8 / prope se loca habeat iii. 16. 12.

As saepe was noticeably recurrent in the Aratus-passage (cf. p. 24 n.) so various forms of primus occur frequently in the sections which follow Varro. This is to be expected where the subject matter consists of rules of order of procedure and where the time element figures largely. A comparison of Vergil and Varro at this point proves interesting. Almost invariably, the prose writer is content with primus or in primis, while the poet varies the expression. In ac primum iii. 166, alone does Vergil retain the primum of his source (cf. et primum i. 20. 2); elsewhere we find, in its place, praecipue iii. 101, primus 113, incipiens 295, principio iv. 8, and primus 140. Where Varro has in primis, Vergil uses primus iii. 77, primum 384 (cf. ii. 7. 6; ii. 2. 4). That Vergil definitely employs this for stylistic effect is obvious from the fact that not only does he keep its equivalent where found in Varro, but adds it in at least four instances: prima i. 147, ii. 321, primus ii. 408, iii. 10, and also from the fact that with the exception of primo iii. 187 it is initial in the verse. We further notice that πρώτη of Theophrastus (cf. h. ii. 1. 1) becomes principio ii. 9, primum ii. 20, while prius i. 194 serves for the more specific νότῃ ὀστεραία h. ii. 4. 2.

Page 40, Substitution of synonymous or entirely different adjectives.--The following comparisons show use of synonymous adjectives: crassaque terga ii. 236 / terram rudem i. 27. 2; gravis 254 / densa i. 9. 7, pinguis, crassa i. 9. 5; valentis ii. 359 / meliore dura i. 8. 4; pecoris generosi iii. 75 / nobiles, boni ii. 7. 6; brevis alvus iii. 80 / ventre modico ii. 7. 5; obesaque terga iii. 80 / spina maxime duplici ii. 7. 5; densa iuba iii. 86 / iuba crebra ii. 7. 5; solido . . . ungula cornu iii. 88 / ungulis duris ii. 7. 5; denso . . . pingui iii. 124 / faeno . . . pleniores ii. 5. 12; frondosa . . . aestas iii. 296 / verno tempore ii. 2. 12; frondentia . . . arbuta iii. 300-301 / silvestribus saltivus ii. 3. 6; surgentis . . . herbas iv. 12 / pabulum . . . frequens iii. 16. 12; aquas dulces iv. 61 / cf. aqua liquida iii. 16. 27, aqua . . . pura 27, aquam mulsam 28, (sapor) dulcis 6; dulcia mella iv. 101 / cf. Varro's descriptions of honey as liquidum, insuave, bonum, optimum iii. 16. 26; apibus fetis iv. 139 / apes fructuosas iii. 16. 33; ignavum pecus iv. 168 / inertes iii. 16. 8.

Contrast with the expression of Theophrastus: luxuriam

segetum i. 112 / ἀγαθαῖς χώραις h. viii. 7. 4; sed laeta et fortia surgunt ii. 48 / ἰσχυροτέροις h. ii. 2. 6; pinguibus . . . ter-
ris ii. 92 / πολλῆς c. ii. 4. 7; levioribus 92 / ὀλίγης c. ii. 4. 7; rarissima quaeque Lyaeo ii. 229 / μανῇ καὶ κόψῃ c. ii. 4. 4.

As in the following cases, Vergil occasionally used an al-
together different adjective: tardi . . . aselli i. 273 / asel-
lis dossuariis ii. 6. 5; aspera cornu iii. 57 / nigrantibus cor-
nibus ii. 5. 7; publi indomitae iii. 174, conveys the feeling of
the young, free, untrammelled spirit of the animals instead of
simply describing them in terms of their age, mere sucklings, as
does Varro: lactantes ii. 5. 16, semestribus vitulis ii. 5. 17;
post montem oppositum iii. 213 / in montes frondosos ii. 5. 11;
rapidus Sol ii. 321 / ὁ ἥλιος θερμαίνων c. iii. 2. 6; nidis immi-
tibus iv. 17 / νεοττιάς 626 a 13.

Page 41, Transfer of application (apropos of maxumus
. . . . imber, vs. 429).--Silvestria appears at ii. 3, apropos of
matter related in i. 41. 5, where the word does not occur; but it
does occur at the end of i. 40. 5. Matrum, iii. 51, is applied
to horses / ii. 5. 17, to cows, ii. 2. 15 f., to sheep. Honesti
iii. 81 (of horses) / honestos ii. 6. 2 of asses, in a paragraph
preceding the discussion of horses. Cf. amantis ardua dumos iii.
315 / amantis litora myrtos iv. 124, which is far removed from
the section dealing with the material which Vergil treats here.
The remarks of iii. 89-94 (section on horses) are an ornamental
digression based on myth and legend / ii. 5. 5 is a similar di-
gression on oxen. Per terram et summo vestigia pulvere signent
(of draft animals) iii. 171 / i. 20. 2 makes a similar statement,
but there it properly pertains to plowing. Of draft animals,
Varro says, in the next paragraph (i. 20. 3), "Per vicum aut op-
pidum," which Vergil omits here.

Page 41, Adjectival substitutions.--Compare corticibus
. . . . cavatis iv. 33 / faciunt ex viminibus rotundas; ex arbore
cava iii. 16. 15; angustus . . . aditus iv. 35 / eas conangustent
iii. 16. 15; odor . . . gravis iv. 49 / male oleat iii. 16. 6;
vacua iv. 90 (with contraction both in matter and expression) /
quod fuget aut cum multitudinem fugetur iii. 16. 18; sonus . . .
gravior iv. 260 / consonant vehementer iii. 16. 30; galbaneos
. . . . odores 264 / bene olentium iii. 16. 36; plenis . . .
canistris 280 / suppleunt iii. 16. 28.

Also, caudicibus sectis 30 / διαίρειν h. ii. 1. 4; oleagi-
na ii. 31 / ἡ ἐλάα; τῆς ἐλάας h. ii. 1. 4; infecunda ii. 48 / καὶ
προφαίνει μὲν πλείω καρπὸν ἐκπέττει δ' ἥττον h. iii. 2. 1; austri-
nos ii. 271 / καὶ τὰ πρὸς μεσημβρίαν h. ii. 5. 3; validis . . .
stirpibus ii. 367 / ὅταν ἰσχύωσιν c. iii. 7. 3; undantem ii. 437 /
οὗ ἡ πλείστη γίνεται h. iii. 15. 5; vento . . . gravidæ iii.
275 / ὅταν δὲ τοῦτο πάθωσι 572 a 15, 16.

Page 41, Mythological terms.--Compare Zephyro i. 44 vs.
sole i. 27. 2; Zephyris iii. 322, an addition / (ii. 2. 10); Nep-
tuno (water) iv. 29, an addition / (iii. 16. 27); canis aestifer
ii. 353 / τοῦ θέρους c. iii. 4. 3; aquilo ii. 404 / (c. iii. 15. 1).
Observe Lethaeo perfusa . . . somno i. 78, an addition /
(i. 44. 3); flava Ceres i. 96, added; rubicunda Ceres i. 297 / se-
ges i. 50. 2, frumentum i. 50. 1; Cereri ii. 229 / ὁ δημήτριος
καρπός c. ii. 4. 5; alto Olympo, added, i. 96; Eleusinae . . .
matris i. 163; Celei, Iacchi i. 165-66; Libra . . . ubi fecerit
i. 208 / aequinoctio autumnali i. 34. 1; cadens mittet . . .
Bootes i. 229; i. 276-86 is a free poetizing, with mythological

allusions, of the lunar divisions of the month / i. 37; Bacchi umor ii. 143 / vinum i. 2. 6, Baccho ii. 228 / ἀμπελοφό-
 ρος ἀγαθή c. ii. 4. 4, Baccho ii. 380 / Libero patri i. 2. 19;
 Bacchi (= vini) iii. 264, iv. 102, Baccho (vino) iv. 129, 279;
 Bacchus ii. 275 / τῶν ἀμπέλων c. iii. 6. 6; Palladia sil-
 va ii. 181 / (i. 9); Lucinam iii. 60 / parere ii. 1. 13; aut Al-
 pheae rotis praelabi flumina Pisae Et Iovis in luco currus agitare
 volantis, iii. 180-81 / (ii. 7. 15); Iovis quercus iii.
 332 / arbores ii. 2. 11; iii. 358-59, a poetic and mythological
 development of Sol / sol i. 2. 4 & 5; iii. 392-93 / (ii. 2. 4);
 Idaeasque pices iii. 450 / (ii. 11. 7); Martius iv. 71, added;
 Taygete iv. 232 / (iii. 16. 34); Plias et Oceani iv. 233 / (iii.
 16. 34); invisa Minervae aranea iv. 246-47 / vermiculos
 iii. 16. 17; Cecropiumque iv. 270, added; in Tartara ii. 292 /
 βαθόρριζον h. iii. 16. 1; Lyaeo ii. 229 / (c. ii. 4. 4); Saturni
 ii. 406 / (c. iii. 15. 1) Venus, Glauci iii. 267 / (571 b 12-13);
 Potniades iii. 268 / οὔ Ἰπκοί 571 b 12; et Procne iv. 15,
 (hirundo) / ἔτι δὲ χελιδὼν 626 a 8-9; narcissi lacrimam iv. 160 /
 τῶν τε ἄλλων ἀνθέων 623 b 28; Minervae iv. 246 / (626 b 17-19).

"Localization" (apropos of G. 1. 240-43, 383-84).--Of
 these two citations, the former is an adaptation and elaboration
 of the source, while the latter is an addition to the source.
 This principle is exemplified throughout. Cf. Tarenti ii. 197 /
 Tarentinae ii. 2. 18 (both concerning sheep); Epirum iii. 121,
 addition / praised by Varro ii. 1a. 6; 1. 2; 2. 20; 5. 10; Milesia
 iii. 306 / (Va. ii. 11. 11); Parnasia laurus ii. 18 / τῆς δὲ πετε-
 λέας, τῶν φρυγανικῶν καὶ ποιωδῶν h. iii. 1. 3; Idaeis cyparissis
 ii. 83 / τὰ Ἰδαία κυπάριττος γὰρ ἔχει h. iii. 2. 6 (also, κύ-
 πάριττος ἐν Κρήτῃ h. ii. 2. 2); ii. 89-105 names several
 varieties of vines / h. ii. 5. 7; Arabum ii. 115 / Ἀραβίαν h. iv.
 4. 14; Gelonos 115 / ἐν δὲ τοῖς ἀρκτοῦν h. iv. 5. 1 and τὰ μὲν γὰρ
 ἐν τῷ Πόντῳ καὶ τῇ Θράκῃ h. iv. 5. 2; sola India ii. 116 / Ἰνδι-
 κὴ χώρα h. iv. 4. 6; solis Sabaeis 117 / τοῖς Σαβαίοις
 h. ix. 4. 5; Media iii. 126 / μηδία χώρα h. iv. 4. 2; Cytorum ii.
 437 / τὰ Κύτωρα h. iii. 15. 5.

It is interesting to note Vergil's Oebaliae and Tarentum,
 iv. 125, for Varro's in Hispania iii. 16. 10. Also, Bacchi Mas-
 sicus umor ii. 143 / vinum Falerno i. 2. 6.

Examples of the use of this device to the extent of putting
 in such adjectives independent of the source are: Chaoniam i. 8,
 Acheloia i. 9 / potio i. 1. 5; aut Alpheae rotis praelabi flumina
 Pisae iii. 180 / (ii. 7. 15); Tyrios iii. 307 / ad vestimentum
 ii. 11. 11; summa Lycaeii iii. 314 / in montuosus locis ii.
 1. 6; pastores Libyae iii. 339, & armentarius Afer iii. 344, addi-
 tion / (ii. 2. 9); velocis Spartae catulos acremque Molossum iii.
 405 / (ii. 9. 3, 1. 21); Phrygiae, Idae iv. 41 / (iii. 16. 8);
 Paesti iv. 119 / (i. 16. 3, 7. 6); Oebaliae iv. 125 / urbe i. 16.
 3; Aegyptos iv. 210 / (iii. 16. 6. 8); Libyae solis iii. 249 /
 (Aristotle mentions native land of some animals, but not at this
 point, i.e., 571 b 12-30); Sabellicus iii. 255 / (οἱ ἄγριοι 571 b
 14). Since Theophrastus is rich in these words, many correspon-
 dences are found between him and Vergil, but no additional ones
 are found in Vergil in these sections.

Pages 41-42, Specific vs. general terms.--Contrast Vergil
 and Varro in this respect: Caprae, urī, oves, iuvencae ii. 374-
 75 / pecudes ii. 3. 6; ilicis ii. 453 / arbore ii. 16. 15; dextro
 armo iii. 86 / dexteriolem partem cervicis ii. 7. 5; soli-
 do ungula cornu iii. 88 / ungulis duris ii. 7. 5; ieiunia

iii. 128 / speciem ii. 5. 9; frondes iii. 131 / cibo ii. 5. 12; flumina, muscus, gramine iii. 144 / viridibus, aquosis ii. 5. 14; viridis per herbas iii. 162 / locis viridibus ii. 5. 14; blandis amare iii. 185-86 / ad manus accedere ii. 7. 13; frondentia arbuta iii. 300-301 / silvestribus saltibus ii. 3. 6; quarta caeli hora iii. 327 / sole exorto ii. 2. 10; magis ubera tendunt iii. 396 / genit lacte ii. 2. 19; parco sale contingunt iii. 403 / aspargi solent sales ii. 11. 6; frigidus imber iii. 441 / propter frigora ii. 1. 22; hirsuti vepres iii. 444 / in spinosis locis ii. 3. 8; rorem iv. 12 / aqua pura iii. 16. 12; surgentis herbas iv. 12 / pabulum frequens iii. 16. 12; haec circum iv. 30 / ubi iii. 16. 12; suta iv. 33, texta iv. 34 / faciunt iii. 16. 15, fiunt iii. 16. 17; names of flowers iv. 131 / ex aliis floribus iii. 16. 25; pluvia iv. 191 / non omnis tempestas iii. 16. 28; arundineis canalibus iv. 265 / alvo iii. 16. 36.

Under the same heading, i.e., use of specific rather than general terms, may be added a few examples of a very common substitution, i.e., concrete in place of abstract expression. E.g., ad bella turmasque ferocis iii. 179 / ad rem militarem ii. 7. 15; velamina iii. 313 / usum nauticum ii. 11. 11; custodibus illis iii. 406 / custodiae causa ii. 9. 2; furem iii. 407 / propter latrocinia vicinorum i. 16. 2.

Contrast with Theophrastus, too: Parnasia laurus ii. 18 / τῆς δὲ πτελέας τῶν φρυγανικῶν καὶ ποιωδῶν h. iii. 1. 3; fruticumque ii. 21 / τῶν φυτῶν h. ii. 1. 1, τῶν δὲ φρυγανωδῶν h. ii. 2. 1, ii. 221-23 is specific / πρὸς ἅπαντα c. ii. 4. 9; oleo ii. 222 / δένδρα c. ii. 4. 9; autumnii 321 / (c. iii. 2. 6); stringe, tonde ii. 368 / περιαιρεῖν c. iii. 7. 3.

Compare with Aristotle: Omne adeo genus in terris hominumque ferarumque et genus aequoreum, pecudes pictaeque volucres iii. 242-43 / τῶν ζῴων 571 b 3; specific, picturesque details added throughout iii. 246 ff. / (571 b 12-30); Glauci iii. 267; Potniades quadrigae iii. 268 / οἱ ἵπποι; τοὺς ἱππῆας respectively, 571 b 12-13; dicunt pastores iii. 280-81 / καλοῦσι τινες 572 a 28; virus iii. 281 / τι 572 a 21; angusto in pectore iv. 83 / αἱ μικραὶ 625 a 27; aliae victu vigilant iv. 158 / αἱ δ' ἐπ' ἔργον ἐρχονται 627 a 23-24; aliae purissima mella stipant et liquido distendunt nectare cellas iv. 163-64 / καὶ αἱ μὲν γόνον ἐργάζονται, αἱ δὲ τὸ μέλι 627 a 21; narcissi lacrimam iv. 160 / τῶν τε ἄλλων ἀνθέων 623 b 28; de cortice iv. 160 / ἀπὸ τῶν δένδρων 623 b 28-29; flowers are named iv. 181-83 / a general statement 554 a 11-14 & 623 b 28-30; decedere campis iv. 186 / ἐλθεῖσαι πάλιν 627 a 23; ore legunt 201 / φέρειν 553 b 19 f.; a) gravidos cogunt fetus b) messis iv. 231 / τῇ δὲ τοῦ μέλιτος ἐργασίᾳ 626 b 28-29; parasites are named iv. 239-41 / general statement 625 b 32--626 a 7.

Page 42, General vs. specific.--Compare variae pestes i. 181 / muribus ac formicis i. 51. 1; silvestria virgulta ii. 2-3 / names given in i. 41. 5; florentisque herbas iii. 126 / list named ii. 5. 12; tenuis iv. 19 / ne altitudine escendet duo aut tres digitos iii. 16. 27; quando iv. 228 / verno tempore et aestivo fere ter in mense iii. 16. 17. Again, Vergil makes only a general statement ii. 57-60, whereas h. ii. 2, 3-6 names specific varieties; per agros ii. 346 / Ἐάν δὲ ἐν ἀλμύδει ἡ ἐφάμμω κτλ. c. iii. 6. 3; Vergil states that the willow is useful for its osiers ii. 446 / h. v. 7. 7 contains the statement that the willow is used for making shields, hampers, baskets and the like.

The poetic quality even of indefiniteness appears in the following comparisons: mundi lumina i. 6-7 / Solem et Lunam i. 1. 5; flava farra i. 73, a contraction of i. 23. 3; variae . . . pestes i. 181 / muribus ac formicis i. 51. 1.

Poetic expression.--Note the following examples which are representative rather than complete: Matrem ii. 268 (terra i. 39. 3), fundamentally and perhaps beneath the reader's consciousness, transmits the idea of man's oneness with earth. "Mother earth," it is true, is a literary convention, but still it has overtones of man's kinship and intimacy with earth, which is lacking in "terra." Imprudensque laborum ii. 372 is an addition, having no counterpart in i. 2. 18. So also, apparet liquido sublimis in aëre Nisus i. 404 / (i. 31. 1); ad aratra iuvenco iii. 50 / armatorum ii. 5. 7; et gradiens ima verrit vestigia cauda, iii. 59, is a poetic paraphrase which is active as well as pictorial / codam profusam usque ad calces ii. 5. 8. The passage, iii. 72-88 may be profitably contrasted with ii. 7. 4-6; 5. 8, 6. 2, for its spirited effect is largely a matter of diction. Cf. inde a teneris iii. 74 / e pullo (of a foal) ii. 7. 5; pecoris generosi iii. 75 / boni, nobiles ii. 7. 6; fluvios 77, ponti 78 / flumen ii. 7. 6; primus 77 / in primis ii. 7. 6; temptare 77 / cum flumen trahendum est gregi . . . progreditur ii. 7. 6; turpis ovis temptat scabies iii. 441 / habeant ii. 11. 6; luxuriatque toris animosum pectus honesti iii. 81: (both the language and structure of this paraphrase completely transform pectus latum et plenum ii. 7. 5); prolemque parentem iii. 101 / de stirpe ii. 7. 6. The section iii. 123-37, on care of animals before mating, is a fine example of Vergil's art in selection of material (ii. 1. 17, 5. 12), and the polishing of the gross and objectionable by means of refined and bold metaphors and transformation of expression (cf. discussion of this by Erdmann, p. 45). Likewise iii. 130-31, a poetic paraphrase of the reiterated ante admissuram of ii. 1. 17; and iii. 135-37 which paraphrases, with use of Lucretian metaphors, Varro's plain explanations of ii. 1. 17, 5. 12. Cf. also: rotas . . . inanes iii. 170 / inanias . . . plaustra i. 20. 3; publi indomitae iii. 174 / lactantes, vituli ii. 5. 16; semestribus vitulis ii. 5. 17; quinquemestribus pullis factis ii. 7. 11; dulces . . . natos iii. 178 / pulli; bella . . . turmasque ferocis iii. 179 / ad rem militarem; Venerem iii. 210; caeci stimulos. . . amoris iii. 210 (Lucretian) / (ii. 1. 18); glacies ne frigida iii. 298 / frigus ii. 1. 23; inrorat aquarius iii. 304 / (hiberno pastione ii. 2. 12); Zephyris . . . vocantibus iii. 322 / (ii. 2. 10); Luciferi primo cum sidere iii. 324 / cum prima luce ii. 2. 10; mane novum, gramina, canent iii. 325 / tunc, herba, ruscida ii. 2. 10; sine ullis hospitibus iii. 342-43 / a tectis absunt longe ii. 2. 9; tantum campi iacet iii. 343 / longe et late, multa milia absint ii. 2. 9; munere sic niveo lanæ iii. 391, addition / (ii. 2. 4); lactis amor iii. 394 / lacte ii. 2. 19; primaque ora iii. 399 / proximo anno ii. 6. 4; turpis ovis temptat scabies iii. 441 / habeant ii. 11. 6; cano iii. 442 / (ii. 1. 23); rorem iv. 12 / aqua pura iii. 16. 12; surgentis . . . herbas iv. 12 / pabulum frequens iii. 16. 12; vere suo iv. 22 / vernos pastus iii. 16. 22; hospitibus . . . frondentibus arbor iv. 24 / 624 b 11-12; matris iv. 64 / (iii. 16. 30); intima more suo iv. 66 / iii. 16. 31; turribus arcis iv. 125 / urbe i. 16. 3.

Poetic Designation of time.--Compare Libra . . . fecerit i. 208 / ab & ablative expression of time i. 34. 1; cadens mittet . . . Bootes i. 229 / (Va. i. 32. 2); dum mox frondosa reducitur

aestas iii. 296 / totum annum ii. 2. 7; tota bruma iii. 321 / hiberna ii. 1. 16; excretos haedos iii. 398 / secundum partum pullos ii. 6. 4; primumque ora iii. 399 / proximo anno ii. 6. 4; surgente die iii. 400 / mane ii. 11. 4; horisque diurnis iii. 400 / meridianis horis ii. 11. 4; quarta caeli hora iii. 327 / sole exorto ii. 2. 10.

Page 43, Singular vs. plural.--Examples of this change from plural to singular are innumerable, and many (e.g., pes iii. 55 / pedibus ii. 5. 8) are analogous to the latter quotation above. Cf. formica i. 186 / formicis, formicarum i. 51. 1; saepem i. 270 / saeptis i. 14; single, specific case (donkey) vs. general practice, i. 273 / ii. 6. 5; radix ii. 31 / radices i. 40. 4; taurus ii. 146, victima ii. 147 / italicis, victimas ii. 5. 10; arbos ii. 150 / malus biferas i. 7. 6; dentis ii. 379 / dentes ii. 3. 7; cervix iii. 52 / cervicibus ii. 5. 7; pes iii. 55 / pedibus ii. 5. 8; cornu iii. 57 / cornibus ii. 5. 7; armento iii. 71 / gregibus pecuariis ii. 5. 17; ungula iii. 88 / ungulis ii. 7. 5; ducem, maritum iii. 125 / arietibus ac tauris ii. 1. 17; ne nequeat superesse iii. 127 / ut vires habeant ii. 1. 17 or firmiores fiunt ii. 2. 13 (specific, particular case vs. general situation, similar to i. 273 / ii. 6. 5, of the donkey, above); cervici iii. 167 / colla i. 20. 2; primus equi labor est iii. 182 / (equi) ii. 7. 12; gementem ferre rotam! iii. 183-84 / (ii. 7. 12); post montem oppositum iii. 213 / in montes frondosos ii. 5. 11; stabula hiberno opponere soli 302 / ad hibernos exortos ii. 3. 6; vallem iii. 331 / rupes ii. 2. 11; (armentarius Afer) agit iii. 344 / portant ii. 2. 9; tectum iii. 344 / tectis ii. 2. 9; hiems iii. 356 / hiemes i. 2. 4 but frigora iii. 356 / frigore i. 2. 5 (same verse!); parce sole contingunt iii. 403 / aspergi solent soles ii. 11. 6; velocis Spartae catulos acremque Molossus iii. 405 (Va. has the plural, canes; and, elsewhere: genera duo, unum venaticum alterum quod custodiae causa. Vergil combines the singular and plural, as with hiems and frigora in iii. 356); luporum iii. 407 / lupus, lupos ii. 9. 2; tonsus corpus iii. 448 / tonsas (recentes) ii. 11. 7; vere suo iv. 22 / vernos pastus iii. 16. 22; vimini iv. 34 / ex viminibus iii. 16. 15; fucosque iv. 39 / fucos iii. 16. 8; imago iv. 50 / imagines iii. 16. 12; ignavum pecus iv. 168 / inertes iii. 16. 8.

Also: sulco i. 68 / καὶ τοῖς ἀρότροις c. iii. 20. 2.

Also: list of animals, singular throughout iii. 245-49, iii. 264-65 / 571 b 12-30, singular and plural used; odor iii. 251 / ὀσμαῖς 572 a 11; ipse sus iii. 255 / οἱ ὄες 571 b 13-14; arboris iv. 44 / (πρὸς) τοῖς δένδροσιν 554 b 17; odor iv. 49 / ταῖς δυσώδεσιν ὀσμαῖς 626 a 27; regem iv. 75 / οἱ δὲ βασιλεῖς 625 b 6; narcissi lacrimam 160 / τὰ δάκρυα 623 b 29; venientem iv. 167 / ὅταν δὲ εἰς τὸ σμῆνος ἀφίκωνται 624 b 6-7; regem 210 / οἱ δὲ βασιλεῖς 624 a 26.

Page 43, Plural vs. singular.--Compare ventos i. 51 / anima i. 4. 1, requiescunt i. 82 / requierit i. 44. 3, glandes, arbuta i. 148 / glandem, arbutum ii. 1. 4; semina i. 193 / semen i. 52. 1; fabis i. 215 / fabam i. 34. 2; genus omne silvarum ii. 20-21 / tertium genus seminis i. 40. 4; caudicibus sectis ii. 30 / aequabiliter praecisum i. 40. 4; arvis ii. 180 / terra i. 9. 3; calamos ii. 358 / harundo i. 8. 2; saepes ii. 371 / saeps i. 14. 2; annos iii. 61 / annum ii. 1. 13; in arvis iii. 75 / in pabulo ii. 7. 6; fluvios iii. 77 / flumen ii. 7. 6; herbas iii. 126 / herba ii. 5. 12; fluvios iii. 126 / potione ii. 5. 12; fontibus iii. 131 / potione ii. 5. 12; flumina iii. 144 / mare ii. 5. 11;

gramina iii. 174 / pabulo viridi ii. 5. 16, teneram herbam ii. 5. 17; frumenta iii. 176 / farinam herdeaceam ii. 5. 17; ad bella . . . turmasque ferocis iii. 179 / ad rem militarem ii. 7. 15; hae . . . tuendae iii. 305 / tuendum hoc pecus ii. 3. 6; pecus iii. 342 / greges ii. 2. 9; frigora iii. 356 / frigore i. 2. 5 (cf. hiems / hiemes, same verse); custodibus illis iii. 406 / custos pecoris ii. 9. 1; dammas iii. 410 / cervum ii. 9. 5; securerunt corpora iii. 444 / vulneratum corpus ii. 3. 8; fluviis iii. 445 / aqua ii. 1. 23; pices iii. 450 / pice liquida ii. 11. 7; pinguis ceras iii. 450 / admixta cera alba ii. 11. 7; sedes iv. 8 / alvarium iii. 16. 11; pabula iv. 9 / pabulum iii. 16. 12; herbas iv. 12 / pabulum iii. 16. 12; aquas dulces iv. 61 / aqua liquida iii. 16. 27; sapores iv. 62 / sapor iii. 16. 6; sedibus iv. 65 / domicilio iii. 16. 31; cunabula iv. 66 / in coloniam iii. 16. 31; regibus iv. 68 / rege iii. 16. 18; tubarum iv. 72 / imitatione tubae iii. 16. 9; animos iv. 83 / ne deficiant animum iii. 16. 34; certamina iv. 86 / pugna iii. 16. 35; mella . . . liquida iv. 101-2 / melle . . . liquidum mel iii. 16. 26; mella iv. 163 / mel iii. 16. 26; mella iv. 169 / mel iii. 16. 14; examina iv. 103 / examen iii. 16. 29; tecta iv. 104 and 113 / in tecto loco iii. 16. 37; tecta . . . circum 113 / circum villam iii. 16. 10; turribus arcis iv. 125 / urbe iii. 16. 3; operum iv. 184 / operis, opus iii. 16. 9; animos iv. 240 / animum iii. 16. 34; arundineis canalibus iv. 265 / alvo iii. 16. 36; passos . . . racemos iv. 269 / uvam passam iii. 16. 28.

Cf. Theophrastus: ulmisque ii. 18 / πετλέαν h. iii. 1. 1; sudes ii. 25 / καὶ ἀπὸ βάβδου h. ii. 1. 4; vallos ii. 25 / χάρακος h. ii. 1. 4; sucos ii. 59 / χυλῶ h. ii. 2. 5; malos ii. 70 / ἡ δάφνη c. ii. 17. 4; v. 4. 5; plantani ii. 70 / πλαντάνω c. ii. 17. 4; v. 4. 5; terris 92 / γῆς h. ii. 5. 7; venena ii. 130 / τὸ φάρμακόν h. iv. 4. 2; calores ii. 270 / τοῦ θερμοῦ c. ii. 4. 12.

Cf. Aristotle: tauros iii. 212 / ὃ δὲ ταῦρος 572 b 17; genus hominumque iii. 242 / περὶ ἀνθρώπων 571 b 7; lacerti iv. 13 / ὃ φρύνος 626 a 31; meropesque iv. 14 / καὶ μέροψ 626 a 9; mella iv. 163 / μέλι 627 a 21; ad portas iv. 165 / ἐπὶ τε γὰρ εἰσόδῳ 625 b 3; aquas 166 / ὕδωρ 627 a 11; lapillos . . . tollunt iv. 194-96 / φέρουσι λίθων 626 b 24; natos iv. 200 / τὸν γόνον 553b19.

Substitution for the comparative.--This tendency becomes even more apparent upon the examination of longer passages. Of course a few comparatives are found, but they are exceptional. (It is clear that metrical requirements are an important determining factor in this matter.) Observe the following cases in which the comparative is retained: grandior i. 195 / grandissima i. 52. 1; cura . . . leviores iii. 305, an addition; densior suboles iii. 308 / eae fecundiores ii. 3. 2; magis iii. 309 / grandiore ii. 3. 2 (comparative in both, but different in form); magis et magis ubera tendunt iii. 396 / genit lacte ii. 2. 19; melior iv. 90 / melior iii. 16. 18; haec potior suboles iv. 100 / hoc genus potissimum iii. 16. 15; longius iv. 192 / longius iii. 16. 28; sonus . . . gravior iv. 260 / vehementer iii. 16. 30; levioribus ii. 92 / ὀλίγης c. ii. 4. 7; quo non praesentius ullum ii. 127, an amplification of χρήσιμον δ' ἐπειδὴν τύχη τις πεπωκὼς κτλ. h. iv. 4. 2; saevior iii. 246 / χαλεπαί 571 b 30; amant fluvios magis iii. 396 / πίνει μᾶλλον 596 a 22; magis ubera tendunt iii. 396 / γάλα ποιεῖ πλεῖον & μεῖζω τὰ οὖθρα καθύψιν 596 a 23, 25; melior iv. 90 / ἀγαθόν 625 a 31; hic melior iv. 92 / ὃ μὲν βελτίων 624 b 23.

More frequently, however, comparatives of the source are replaced by the positive or superlative, or disappear in a para-

phrase. Thus in passages which reflect Varro we find: at quae pinguis humus dulcique uligine laeta ii. 184 is a substitute for umidiore i. 9. 4; optima frumentis ii. 205 is similar to qui locus optimus vino sit Va. i. 25, but replaces the ideas of a more pertinent passage in which Varro uses the words commodior i. 9. 6, idonea i. 9. 7, fecundior i. 9. 5; cunctantes ii. 236, by a reversal of expression, replaces aptiores and facilliores i. 27. 2; animum pascat prospectus ii. 285 is variously expressed by Varro in iucundiore spectaculo sunt multis i. 2. 10, quae specie fiant venustiora i. 7. 2, formosius i. 4. 2. Sed quia non aliter viris dabit omnibus aequas ii. 286 is the counterpart of two different statements in Varro, each containing a comparative: maiore quoque fructu sint i. 7. 2, fructuosiores eadem faciunt i. 4. 2. Note also dextro iii. 86 / dexteriores ii. 7. 5; dulces natos iii. 178 / meliores pullos ii. 7. 11; gravidus ubere iii. 317 / ubere sint grandiore ii. 3. 2; saepe iv. 67 / crebrius iii. 16. 35; regnet iv. 90 / infirmiores a valentioribus opprimantur iii. 16. 35; abundare iv. 140 / magis habere iii. 16. 33. Cato, like Varro, has a propensity for comparatives, and whether or not Vergil had Cato at hand, the following instances of their diversity in this regard are shown by sceleratum ii. 256 / macrior Cato vi. 2 and frigus ii. 256 / frigidior Cato vi. 2. The same, as might be expected, is true in passages which reflect Theophrastus: tarda ii. 58 / ὀψιματερον iii. 2. 1, degenerant ii. 59 / χεῖρον γίγεται h. iii. 2. 3; simillima ii. 131 / ὁμοιον h. iv. 4. 2; optuma ii. 205 / ἀγαθὴν c. ii. 4. 11.

Comparison with Varro reveals a similar aversion to words ending in -osus. Occasionally these too are found (e.g., dumosis ii. 180) but they are rare. Observe the following substitutions: saepe oleo tardi costas agitator aselli i. 273 / dossuariis ii. 6. 5; argilla, calculus ii. 180 / cretosa, lapidosa i. 9. 3; optuma frumentis ii. 205 / licet videre et segetes fructuosas i. 9. 6; sed quia non aliter viris dabit omnibus aequas ii. 286 / fructuosiores i. 4. 2; hirtae aures iii. 55 / pilosis auribus ii. 5. 7; flumina iii. 144 / locis aquosis ii. 5. 14; speluncaeque tegant iii. 145 / frondosos ii. 5. 11; post montem oppositum iii. 213 / in montes frondosos ii. 5. 11; a ventis iii. 302 / ne ventosa ii. 2. 7; summa Lycaei iii. 314 / in montuosis locis ii. 1. 16; horrentisque rubos et amantis ardua dumos iii. 315 / in spinosis locis ii. 3. 8; vitium iii. 454 / vitiosum ii. 1. 21; incessit discordia iv. 68 / propter seditiones esse seditiosum et corrumpere alvom iii. 16. 18; apibus fetis iv. 139 / apes fructuosas iii. 16. 33.

Page 44, Admonitory verbs and forms.--The scope of this principle, which has so much to do with determining the tenor of the whole work, shows up even more clearly when longer passages are scrutinized. To contrast Vergil and Varro at points where they treat of the same matter is enlightening. In some thirty such instances the prose version is burdened with didactic forms: the periphrastic occurs most frequently (16 times), oportet is overworked (10 times), the subjunctive adds its exhortation occasionally (4 times), the outright imperative is neglected. Vergil, on the other hand, as a rule substitutes a variety of expression ranging from a poetic paraphrase to the simple narrative indicative (16 times), uses the imperative form 7 times, the subjunctive 4, the periphrastic but twice, and oportet and debet not at all! The following data are the basis for these remarks: praediscere . . . cura sit i. 51-52 / considerata i. 23. 1; the passage i. 63-70 and i. 74 are varied in phraseology, contrary to the oportet and

periphrastic forms of Varro; fuge i. 277 / periphrastic, i. 37; melius (fieri) i. 287 / haec fieri oportet i. 36; expecta ii. 237 / oportet and periphrastic throughout the corresponding passage, i. 27. 2; terram proscinde ii. 237 / terram proscindere oportet i. 27. 2; notabis iii. 100 / cf. spectare oportet ii. 7. 1; observare debet ii. 5. 7; denso distendere pingu iiii. 124 / largius pabulo explendum ii. 2. 13; ministrant iii. 126 / obiciendum sit, dandum ii. 1. 17; tenuant iii. 129, negant et . . . arcent l31/ne . . . se impleant ii. 5. 12; sit passus with a series of infinitives which are in keeping with the infinitives just preceding, iii. 138-41 / videndum ne ii. 7. 10; pascunt iii. 143 / pasci oportet ii. 5. 14; vlamque insiste domandi iii. 164 / ita subigendum ut i. 20. 2; coge (a series of imperatives in this sentence) iii. 169 / minutatim adsuafaciant i. 20. 2; depulsus ab ubere iii. 187 / a lacte removendum ii. 7. 12 (but cf. deiuncit here also); poetic paraphrase, iii. 210, of hortatory subjunctive in mares . . . secretos habeant ii. 1. 18; tuendae iii. 305 / tuendum ii. 3. 6 (only case where periphrastic of Varro is kept); omni studio iii. 318 / curandum ii. 2. 17; avertes, feres iii. 320 / a . . . curandum ii. 2. 17; lege iii. 386 / videndum ut . . . habeas ii. 2. 4; reice iii. 389 / animadvertendum . . . ne ii. 2. 4; pasce iii. 406 / panem . . . dandum ii. 9. 10; docebo iii. 440 / animadvertendum ii. 1. 21; medicas adhibere manus . . . pastor abnegat iii. 455-56 / adhibendi medici ii. 1. 21; adsint iv. 19 / iis aqua . . . esse oportet iii. 16. 27; sine iv. 90 / providendum iii. 16. 35; serat iv. 113 / oportet . . . serere iii. 16. 13; suadebo incendere iv. 264 / subfumigandum iii. 16. 36.

We have not arrived at the truth however until a contrast with the style of Aristotle and Theophrastus, in pertinent passages, has been taken into consideration. Here the poet adds words of admonition and advice, usually in the imperative form; mollite ii. 36 / ἐξήμεροῦται h. ii. 2. 12; densa sere ii. 275 / πυκνὰ . . . φύτεύειν c. ii. 4. 7; inter vitis . . . sere ii. 299 / ἀμπέλῳ . . . παραφύσσει c. iii. 10. 6, 7; pete aut . . . defringi ii. 300 / λαμβάνουσιν c. iii. 5. 3; parcendum ii. 363 / μηδὲν κινεῖν c. iii. 7. 3; nondum . . . temptanda ii. 365 / ἀπαθείς c. iii. 7. 3. Compared with Aristotle, however, we see Vergil deliberately adding the didactic element, usually in the imperative form; e.g., dede and sine iv. 90 are additions (625 a 27 ff.); relines iv. 229 / ἐξαίρειν 623 b 19. Aristotle does not write in the style of one dictating procedure, but as one recording his observations of nature. Considering therefore how Vergil dispenses with the hortatory excesses of Varro but supplies admonitory forms where they are lacking in the Greek prose writers, we get some conception of the tone for which, by striking a happy medium and consistently adhering to it, our poet strives.

No doubt the exigencies of meter are partly responsible for the fact that even where Vergil does become didactic he definitely avoids periphrastic forms. This is substantiated by the fact that in comparison with Varro not only the periphrastic but the gerund and gerundive forms as well are taboo. Among the countless places where this is apparent, observe the following illustrations: tarde crescentis olivae ii. 3 / olea in crescendo tarda i. 41. 5; iubeto . . . potare iii. 329-30 / ad bibendum adpellunt ii. 2. 11; tinnitusque . . . circum iv. 64 / circumtinniendo aere iii. 16. 30; pulveris exigui iactu iv. 87 / iaciundo in eas pulvere iii. 16. 30; cogere pressis mella favis iv. 140-41 / in eximendo and eximendorum favorum iii. 16. 33, 34.

. . . . herbae i. 69 / (i. 27. 2); coquat (aestas) i. 66 / glae-
bis percalefactis i. 27. 2; cessare (patiere) i. 71 / re-
linqui oportet i. 44. 3; Libra fecerit i. 208 / (ab & abl.
of time, expression i. 34. 1); cadens mittet Bootes i.
228 / (i. 32. 2); ipsa dedit luna i. 276 / (i. 37);
terrae collesque gaudent ii. 179-81 / (i. 9); (terra)
. . . . prodit ii. 254 / (i. 9. 7); dabit terra ii. 286-
87 / (i. 7. 2); poterunt se extendere rami ii. 287 / (i. 4. 2);
prolemque parentum iii. 101, of horses / ii. 7. 1 (of cattle ii.
5. 7); nota voluptas sollicitat iii. 130-31 / (ii. 1. 17, 5. 12);
negant arcent iii. 131 / ne se impleant ii. 5. 12;
cura patrum iii. 138 / ii. 7. 10-12; ubi colla servitio
adsuerint iii. 167-68 / erunt mansueti i. 20. 2; dulces natos iii.
178 / meliores pullos (calves) ii. 7. 11; det mollibus ora capis-
tris iii. 188 / ii. 6. 4 (asini); Venerem et caeci stimulos
amoris (of horses) iii. 210 / ii. 1. 18; glacies ne frigida lae-
det -que ferat iii. 298-99 / ii. 1. 23; cadit -que
inrorat aquarius iii. 304 / cf. ii. 2. 12, 1. 16; aestas
gregem in pascua mittet iii. 322-23 / (Oves) exeunt pastum
ii. 2. 10; ubi quarta situm caeli collegerit hora iii.
327 / potum propellunt ii. 2. 10; sicubi quercus
tendat ramos iii. 332-33 / ii. 2. 11; cum frigidus aëra vesper
Temperat iii. 336-37 / aere vespertino ii. 2. 11; saltus reficit
. . . . luna iii. 337 / ii. 2. 11; turpis ovis temptat scabies
iii. 441 / (habeant) ii. 11. 16; hirsuti secuerunt corpora vepres
iii. 444 / vulneratum corpus ii. 3. 8; praeceps immerse-
rit eurus iv. 27-29 (added) / iii. 16. 29; cogit hiems iv.
36 / hieme commoventur iii. 16. 17; incessit dis-
cordia iv. 68 / iii. 16. 18; latamque trahens alvum iv.
94 / lato ventre iii. 16. 19; vesper admonuit iv. 186-87 /
(iii. 16. 9).

Cf. Theophrastus: aliae ipsae ii. 10, sponte sua
11 / h. ii. 1. 1, h. iii. 1. 1; Medi ora foveant ii. 134-
35 / h. iv. 4. 2; bibit , cum volt, ex se ipsa remittit
ii. 218 / c. ii. 4. 9; frugibus infelix (ea nec mansuescit arando
Nec Baccho genus aut pomis sua nomina servat) ii. 239-40 / ἐπιμά-
ει τὸ δ' ἀλυπότερα τοῖς δένδροις c. ii. 5. 3; rura clau-
dit hiems ii. 317 / Ἐπεὶ δὲ ἡ γῆ βορείοις καὶ πεπηγυῖα καὶ ξηρὰ
. . . . δὲ κεχυμένη c. iii. 4. 4; animos tollent sata ii. 350 /
αἱ γὰρ τροφαὶ καὶ αἱ ἀσέξησαις διὰ τούτων c. iii. 4. 3; frigidus
. . . . aquilo decussit ii. 404 / ἐν τῇ ψυχρᾷ c. iii. 15. 1.

Cf. Aristotle: vesper admonuit iv. 186-87 / ση-
μαίνουσα 627 a 27; sopor occupat iv. 190 / σιωπῶσιν 627 a 28.

Page 45, Amplification.--Vergil's amplified expression,
as compared with that of Varro: Libra die somnique pares ubi fe-
cerit horas Et medium luci atque umbris iam dividit orbem i. 208-9
/ aequinoctio i. 34. 1; usque sub extremum brumae intractabilis
imbrem i. 211 / post brumam i. 34. 1; Ipsa dies alios alio dedit
ordine luna Felicis operum i. 276-77 / dies lunares i. 37; duos
iactare bidentis ii. 355 / occare i. 31. 1; flectere luctantes
inter vineta iuvenco i. 357 / arare i. 31. 1; uncis carpendae
manibus ii. 365-66 / decerpere i. 31. 2; omnibus aris Caeditur ii.
380-81 / immolarentur i. 2. 19; ad bella turmasque fero-
cis iii. 179 / ad rem militarem ii. 7. 15; similarly, iii. 180-81
amplifies ad cursuram ii. 7. 15; cum frigidus olim iam cadit ex-
tremoque inrorat aquarius anno iii. 303-4 / pastiones hi-
berno tempore ii. 2. 12; quamvis Milesia magno Vellera
mutentur Tyrios incocta rubores iii. 306-7 / ad vestimentum ii.
11. 11; an accumulation: crustae iii. 360, vestesque rigescunt

indutae 363-64, solidam in glaciem vertere 365, stresses the important idea / (mare) congelatum i. 2. 4; surgente die iii. 400 / mane ii. 11. 4; turribus arcis iv. 125 / urbe i. 16. 3; iv. 154-55 expands societas iii. 16. 4, iv. 156-57 expands cibaria condere iii. 16. 4.

Compare with Theophrastus: 1. 65-66 amplifies δύνανται γὰρ ἡ μὲν ξηραίνειν καὶ λεπτύνειν c. iii. 20. 2; aliae . . . ipsae ii. 10, nullis hominum cogentibus 10, sponte sua 11, reiterate the activating element of ἡ αὐτόματα; h. ii. 1. 1; similarly, tarda venit seris factura nepotibus umbram ii. 58 / ὁψιαιτερον h. iii. 2. 1; ii. 129 / φάρμακον θανάσιμον h. iv. 4. 2; ii. 204 / ψαθουράν c. ii. 4. 12; ii. 217 / ἀτμίξειν c. ii. 4. 11; ii. 291-92 / βαθύ(ρριζον) h. iii. 16. 1; stringe, tonde ii. 368 / περιαιρεῖν c. iii. 7. 3.

Compare with Aristotle: cornibus inter se subigit decernere amantis iii. 218 / μάχονται διιστάμενοι πρὸς ἀλλήλους 571 b 23-24; iii. 250-51 / διαγιγνώσκουσι 572 b 10; notas . . . auras ii. 251 / ὄσματς 572 b 11; non Eure, . . . neque solis ad ortus iii. 277 / οὔτε πρὸς ἔω 572 a 18; iii. 283 / περὶ τὰς φαρμακείας 572 a 23; saltus silvasque peragant iv. 53 / ἐργάζονται 625 b 24-25; ad pugnam . . . exierint iv. 67 / πολεμοῦσι 625 a 27; magno discordia motu iv. 68 / σφόδρα 625 a 27; iv. 79 / ἐπιδοῦντες αὐτοῦς 624 a 24; ingentis animos iv. 83 / σφόδρα 625 a 27; angusto in pectore iv. 83 / αἱ μικραὶ 625 a 27; latamque trahens . . . alvum iv. 94 / πλατυγαστῶρ 624 b 26-27; aliae purissima mella Stipant et liquido distendunt nectare cellas 163-64 / καὶ αἱ μὲν γόνον ἐργάζονται, αἱ δὲ τὸ μέλι 627 a 21; a stabulis iv. 191, recedunt 191; longius 192 / ἀποπέτονται 627 a 11.

This principle, extended to the point of addition of numerous details and references, is of such general application that the treatment must necessarily be limited here. Note a few typical examples, however: 1. 74-76 lists plants by name / i. 23. 1-3; ii. 21 gives examples of classes named in i. 40. 2-4; iii. 391-93 adds mythological allusion and application; iv. 131 names flowers / ex aliis floribus iii. 16. 25. Likewise, ii. 89-105 enumerates varieties, to which mere reference is made by Theophrastus h. ii. 5. 7; ii. 131 ff. describes the tree itself, mentions its fragrance and foliage, while the Greek describes only the fruit and foliage; cf. h. iv. 4. 2. Vergil gives two specific examples of the work of the bees, iv. 178-79, while Aristotle makes only a general statement of this in a corresponding section, 626 b 8.

Page 46, Condensation of phrase to word.--Similarly: virgea i. 165 / ex viminibus i. 22. 1; villisque i. 165 / materia rustica i. 22. 1; ima . . . cauda iii. 59 / codam profusam usque ad calces ii. 5. 8; aut aris servare sacros iii. 160 / ad victimas faciunt atque ad deorum servant supplicia ii. 5. 10; summo . . . pulvere iii. 171 / per harenam i. 20. 2; vellera iii. 307 / e lana ii. 11. 11; glaciem iii. 318 / a frigore ii. 2. 17; avertes iii. 320 / curandum a ii. 2. 17; excretos . . . haedos iii. 398 / secundum partum pullos ii. 6. 4 (cf. post partum iii. 157 / secundum partum); custodibus illis iii. 406 / custodiae causa ii. 9. 2; nocturnum . . . furem iii. 407 combines the ideas of noctu vigilare and propter latrocinia vicinorum i. 16. 2; amor iii. 244 / περὶ τὴν ἐπιθυμίαν καὶ τὴν ἡδονὴν 571 b 9-10; fricat arbore costas iii. 256 / πρὸς τὰ δένδρα τρίβοντες 571 b 17-18; furor iii. 266 / ὀρμητικῶς . . . πρὸς τὸν συνδυασμὸν 572 a 9; non Eure iii. 277 / οὔτε πρὸς ἔω 572 a 18; spiramenta iv. 39 / περὶ δὲ τὸ στόμα τοῦ σμήνους τὸ μὲν πρῶτον τῆς εἰσόδου 624 a 13-14; novercae iii. 282

/ αἱ περὶ τὰς φαρμακείας 572 a 23-24! Cf. also the curious compression: corticibus cavis ii. 453 / alii corticibus, alii ex arbore cava iii. 16. 15.

Page 46 n., More on condensation (apropos of densa, vs. 445).--This phase of condensation may be especially appreciated when comparison is made between writers in the same tongue. Let a few examples of contrast with Varro suffice: *texendae* ii. 371 / *fit* . . . *implicatis* i. 14. 2; *optuma* iii. 51 / *bene compositionis* ii. 5. 7; *plurima cervix* iii. 52 / *cervicibus crassis ac longis* ii. 5. 7; *armo* iii. 86 / *partem cervicis* ii. 7. 5; *macie tenuant* iii. 129 / *ne cibo et potione se impleant* ii. 5. 12; *invertere* iii. 161 / *arationes absolvi*, etc. i. 32. 1; *vitulos* iii. 164 / *novellos* . . . *iuvenco* i. 20. 2; *gramina* iii. 174 / *pabulo viridi* ii. 5. 16, *teneram herbam* ii. 5. 17; (*podagras* iii. 299 / cf. *uligo lanam corrumpit ovium*, sed etiam *ungulas* ii. 2. 7); *utrumque pecus* iii. 323 / *hoc pecus* . . . *atque ovillum* ii. 3. 6; *raris* iii. 340 / *a tectis absint longe in solitudine* ii. 2. 9; *longa in deserta* iii. 342 / *longe enim et late in diversis locis* ii. 2. 9; *lege* iii. 386 / *videndum ut* . . . *habeas* ii. 2. 4; *premunt* iii. 401 / *caseum facere* ii. 11. 4; *pasce* iii. 406 / *panem dandum* ii. 9. 10; *sese* . . . *condent* iv. 66 / *in coloniam cum introierint*, permanent adeo libenter iii. 16. 31; *regnet* iv. 90 / *infirmiores a valentioribus opprimantur* iii. 16. 35.

Notice the same type of condensation in contrast with the expression of Theophrastus: *fecunda* i. 67 / *ξηρὸν καὶ μανὴν καὶ τὴν λεπτὴν καὶ κοῦφην* c. iii. 20. 2; *depascit* i. 112 / *ἐπινέμουςι καὶ ἐπικείρουσι* h. viii. 7. 4; *infecunda* ii. 48 / *καὶ προφαίνει μὲν πλείω καρπὸν ἐκπέττει δ' ἥττον* h. iii. 2. 1; *rarissima* ii. 229 / *μανὴ καὶ κοῦφη καὶ λεπτή* c. ii. 4. 4; *laede* ii. 301 / *αἱ δὲ κολούσεις φθείρουσιν ὅλως ὀλίγα* c. v. 17. 5. Also, in comparison with Aristotle: *amor* iii. 244 / *περὶ τὴν ἐπιθυμίαν καὶ τὴν ἡδονήν* 571 b 9-10; *durat* iii. 257 / *ποιούντες* . . . *ὡς παχύτατον* 571 b 16-17; *furor* iii. 266 / *ὀρμητικῶς* . . . *πρὸς τὸν συνδυασμὸν* 572 a 9; *spiramenta* iv. 39 / *Περὶ δὲ τὸ στόμα τοῦ ὁμήνου τοῦ μὲν* 624 a 13-14; *desidia* iv. 94 / (*ἀργουσί τε καὶ τελέως* 625 a 30).

Page 46, 46 n., Condensation of clause to word (cf. caeruleus vs. 453, p. 34).--See note on page 71 above.

Page 47 and n. 2, Balance.--See cases of balance retained: *bis* . . . *bis* ii. 150 / *bis* . . . *bis* ii. 3. 4, 4. 14 (*bifera* ut . . . *biferae* ut i. 7. 6); series of infinitives, iii. 182-86 / series of infinitives ii. 7. 12; *rursus* . . . *rursus* iii. 335 / *rursus* ii. 2. 10 . . . *rursus* ii. 2. 11 . . . *rursus*; *altera* . . . *altera* ii. 228 / "Ἀλλή . . . ἄλλα c. ii. 4. 4; (*enim*) . . . *que* . . . *atque* ii. 349-50 / γὰρ . . . καὶ . . . καὶ . . . καὶ . . . γὰρ καὶ c. iii. 4. 3; *neque* iv. 9 . . . *neque* 10 (two separate units) / *neque* . . . *neque* iii. 16. 12 (one small unit); *e foliis* . . . *e* . . . *herbis* iv. 200 / ἀπὸ . . . ἀπὸ 553 a 20-21. Note also an interesting but not unique case of manipulation in which repetition is retained but with different words: *alterius ramos* . . . in *alterius* ii. 32-33 / *ex arboribus in arbores* i. 39. 3.

More common, however, is a balance which is not lifted from the source but simply parallels a repetition found at that point in the source (cf. *saepe* i. 365 . . . *saepe* 368 / καὶ . . . καὶ; *nunc* . . . *nunc* i. 386 / ἢ που καὶ . . . ἢ καὶ . . . ἢ): *superest* ii. 346 . . . *superest* ii. 354 / *in primo intervallo* i. 29. 1, . . . *in secundo intervallo* i. 30. 1. . .

in tertio intervallo i. 31. 1; aliae ii. 26 aliae 28 /
quattuor generum, quae quae quae quae i.
39. 3; cui cui iii. 52 / ut ut ne ii. 5.
7; patrum matrum iii. 138 / equus equae Va. ii. 7;
/ hinc hinc iii. 308 / e lana e pilis ii. 11. 11;
dum dum iii. 325 / tunc tunc ii. 2. 10; seu
seu iv. 33-34 / alii alii alii alii
alii iii. 16. 15; aliae iv. 96 aliae 98 / signa
signa iii. 16. 20; aut vel iv. 268-69 / alii alii
. alii iii. 16. 28; illic i. 69 hic i. 70 / ἢ μὲν
. ἢ δέ c. iii. 20. 2; hic hic ii. 23-24 / καὶ
καὶ καὶ καὶ h. ii. 1. 4; hae illae ii. 92
/ τοῖς τοῖς c. ii. 4. 7; aut aut ii. 348 / οἱ δὲ
. οἱ δέ οἱ δέ c. iii. 4. 3; tum tum
tum iii. 248-49 / καὶ καὶ καὶ 571 b 26 f.; aut
hos aut hos iv. 84-85 / αἱ μικραὶ αἱ δ' ἑτεραί
625 a 27, 29-30.

Frequently, moreover, Vergil consciously extends the ex-
pression of the source so as to produce a balanced expression in
his verse: bis bis i. 48 / binis i. 27. 2; texendae
. tenendum ii. 371 / tutandi, a single periphrastic form i.
14. 1; nec minor iii. 306 nec minus 311 quo minor
319 (each time initial in verse) / neque non ii. 11. 11; canibus
. canibus iii. 410 / de canibus ii. 9. 2; solae iv. 153
. solae 155 / (solitaria, iii. 16. 4, but used in different
sense); mane iv. 185, vesper 186 / ἔως 627 a 24.

More significant of Vergil's urge for balance are the in-
numerable cases in which his insistent repetition is apparently
entirely independent of the source. Note the following word pat-
terns: (independent of Varro) hic illic i. 69-70; campum
i. 72 campum 77; vidi i. 193, vidi 197; aliae
aliis alii aliae ii. 10-26; hic ii. 23, 24; quae
ii. 184, quique 185, quique 188; hic ii. 190, 191, 192; quae ii.
254, quaeque 255; seu quis iii. 49-50; semper iii. 69, 70; series
of imperatives iii. 164-69; dum dum iii. 165; pastores
Libyae iii. 339 armentarius Afer 344; sola India ii. 166,
solis Sabaeis iii. 117; neque neque iv. 9-10; seu
. seu iv. 25; neu neu iv. 47, neu 48; aut ubi
aut ubi iv. 49; ipsae ipsae iv. 65; ipse iv. 112
ipse ipse 114; aliae iv. 158 (pars 159), aliae 162, 163;
mane iv. 185, vesper 186; ubi iv. 186, 189; aut 257, 258; ut 261,
262. (Independent of Theophrastus:) hos his ii. 20; lau-
ro ii. 131 laurus 133; neve series ii. 299 ff.; ver
ver ii. 323 vere 324; dant dant ii. 442; hinc
. rotis, hinc plaustris ii. 444. (Independent of
Aristotle:) saevior iii. 246 saevus 248 (notice balance
plus variety here. Contrast with χαλεποὶ 571 b 28, ἀγριοὶ 571 b
14, 27 of source); tum tum iv. 187; and contrast

melior iv. 90....hic melior 92....;ille horridus 93

ἀγαθὸν 625 a 31, ὁ μὲν βελτίων 624 b 23.

Notice also the following balanced constructions: series
of prepositions iii. 212-14 (in, post, trans, ad; note variety
within symmetry of construction. The antithetical procul iii. 212,
intus 214 are also effective at this point); series of infinitives
iii. 138-42 without counterpart in the corresponding ii. 7. 10-12
passage; series of imperatives iii. 164-69 / Va. i. 21-22 contains
a cum-clause, a conditional and a result clause; avertes
feres iii. 320 / curandum a ii. 2. 17, obicere ii. 2. 16; subjunc-

tives and imperatives in a pattern (contrary to ii. 2. 18, 2. 3. 4): si absint; fuge iii. 385 lege 286 quamvis sit 387, subest 388, reice 389, ne infuscet 389, circumspecte 390; Surgente die iii. 400, nocte 401, sole cadente:

tum tecta petunt, tum corpora curant, iv. 187.

(Independent of Theophrastus:) imperative series ii. 299 ff.
(Independent of Aristotle:) ruunt portis iv. 185 decedere campis 186; pluvia impendente iv. 191 adventantibus euris iv. 192 (the corresponding 627 b 10-13 shows no balance).

Repetition of content (cf. p. 46 above), that is, the expression of one idea in different ways, may be detected here and there, quite independent of the source. Thus: expectantque levis auras iii. 274 and vento gravidae 275 is an elaboration, by double statement of ἐξανεμοῦσθαι 572 a 14;

non Eure, neque Solis ad ortus iii. 277,

is a similar type of balance, maintained with a nice degree of variety, has no counterpart in 572 a 6 f.; tum tecta petunt iv. 187, repeats the idea of decedere campis 186 and the pair is an elaboration of the simple ἐλθεῖν πάλιν 627 a 26.

For one verse showing singular balance, contrast with the source results in such a tantalizing revelation that perhaps an over-nice analysis is excusable. Consider iii. 242-43:

genus hominumque ferrarumque / et genus aequoreum

cf. 571 b 6-8: Περὶ δὲ τῶν πεζῶν καὶ περὶ ἀνθρώπων
Περὶ οὖν ὁχείας

571 b 3-4: περὶ τῶν ζῶων, καὶ πτηνῶν καὶ πλωτῶν,
(genus)
καὶ περὶ τῶν πεζῶν ὅσα ῥοτοκεῖ.
et (genus)

The resemblance, especially between our verse and 571 b 3-4, in word repetition (genus genus / περὶ περὶ) and pattern (connective and genitive) is significant. But in comparison with the lack of variation in the Greek pattern, the artistry of Vergil stands out:

genus + genitive-genitive, genus + adjective.

Of course the recurrence of "genus + genitive" in genus luporum iii. 264 (λύκοι 571 b 27) is not accidental.

Comparable to this is the balanced construction of ii. 185:

frequens herbis et fertilis ubere

when contrasted with Va. 1. 9. 6: fecundior (ad multa) (ad omnes res) com-

modior. The differences between the two writers here are typical. Except for a change in the word order, the prose statement proceeds with unrelieved regularity in the comparative of the adjective and the two prepositional phrases. The poet has maintained an equally regular balance, has simplified the expression by avoiding the comparative degree of the adjective (cf. p. 80 above), and by reducing the prepositional phrase, has used alliteration to advantage

(the f f repetition is more subtle than the ad ad of Varro), has introduced variety by the plural, herbis, and singular, ubere, and has added meaning and vividness by choice of words of specific rather than of general connotation.

Again, the balance of iv. 184 stands on its own merit, for the corresponding statement in Va. iii. 16. 9 is devoid of both balance and variety.

omnibus una quies operum, labor omnibus unus

Despite the harmonious balance of these two half verses, graphically indicated by the connecting curves, variety plays freely in 1) the order of words, 2) the juxtaposition of quies operum and labor, 3) and the effective juxtaposition of operum and labor, which is a detail doubly appreciated when one sees that Varro uses opus throughout this paragraph.

Page 47, Word order.--Vergil's word order is particularly striking in this respect when contrasted with that of Varro, who regularly follows the noun-adjective order.

Page 47, Figure of speech.--Similarly: agmen iv. 59 / ut milites iii. 16. 30; vox Auditur fractos sonitus imitata tubarum iv. 71-72 / ad vocem ut imitatione tubae iii. 16. 9.

Cf. also: simile i. 201-3, in an amplification of Va. i. 52. 1; tenero de corpore matrum ii. 23 / de tenero ramo i. 40. 4; Bacchi umor ii. 143 / (i. 2. 6); ii. 279-83 (rows of trees like a military formation), an addition / (i. 7. 3); arvo iii. 136, sulcos 136 Venerem 137 (Lucretian metaphors) / (ii. 5. 7, 1. 17); rotae inanes iii. 170 / inania plaustra i. 20. 3; iii. 196-201, a simile according to Lucretius (added); iii. 346-48 simile added. iv. 67-81, battle-figure, of the bees / (iii. 16, 18, 9, 30, 29, 32) / iv. 80-81, 2 similes added; iv. 261-62, 2 similes / iii. 16. 30 has one simile. Laxis immisus habenis ii. 364 / (c. iii. 7. 3); iii. 236-41, simile of raging sea used to describe fray / (571 b 15-26); iv. 195 added simile / 626 b 24--627 a 5.

Page 51 (cf. pp. 22, 44 also), Imperatives.--Contrast fuge 1. 277 / observandi; facienda Va. i. 37.

Page 55, Description by effect.--Pabula, nec tcta claudes faenilia bruma iii. 321 is an indirect way of giving the advice to feed the animals all winter, until in the spring when they can graze, which is the statement of ii. 2. 12. Similarly, instead of stating directly that the stallion recognizes the mare, as does 572 b 10 ff., Vergil says it in effect, iii. 250-51:

nonne vides, ut tota tremor pertemptet equorum
corpora, si tantum notas odor attulit auras?

Page 56, Sight.--Some of the most effective pictures to be found elsewhere follow. Notice how frequently they are additions of the poet's own: vss. i. 71-83 are rich in words indicating color, sound and shape (cf. i. 23. 3); iii. 309-10, the frothing milk pail, added / (ii. 3. 2); iii. 83-88, spirited picture of the war horse, suggested by ii. 7. 15; iii. 316-17: atque ipsae memores redeunt in tecta suosque Ducunt et gravidio superant vix ubere limen, added / ii. 2. 15 & 18; iii. 332-34, description of trees, added, is a development of sub arbores patulas ii. 2. 11; ii. 6. 4; iii. 394-97, of bringing in the feed by hand; iii. 399,

of muzzled kids / (ii. 6. 4); iv. 10-12: neque oves haedique petulci Floribus insultent aut errans bucula campo Decutiat rorem et surgentis atterat herbas, added / (iii. 16. 12); iv. 20: palmaque vestibulum aut ingens oleaster inumbret; iv. 67-81, 95-100, description of the bees / (iii. 16. 18, 9, 30, 29, 32); iv. 94: desidia latamque trahens inglorius alvum, added / (iii. 16. 19). Also: aut dirum tiniae genus, aut invisa Minervae Laxos in foribus suspendit aranea casset, iv. 246-47 / 626 b 15-24.

For color, look at the following: flumina, muscus ubi et viridissima gramine ripa iii. 144 / locis viridibus et aquosis ii. 5. 14; Tyrios . . . rubores iii. 307, added / (ii. 11. 11); roscida luna iii. 337 / (herba) ruscida ii. 2. 10; stagna virentia musco iv. 18, added / (iii. 16. 27); casiae virides iii. 30, added / (iii. 16. 12, 13); iv. 98-100 on the color of bees / si nitidae iii. 16. 20; ii. 71-72: Casteneae fagus ornusque incanuit albo Flore piri glandemque sues fregere sub ulmis, apparently a contradiction of non enim pirus recepit quercus i. 40. 5. Color and smell: haec circum casiae virides et olentia late Serpylla et graviter spirantis copia thymbrae Floreat inriguumque bibant violaria fontem iv. 30-32 / (iii. 16. 12, 13).

Sense of taste in the following, too: tenuis viciae i. 75 / (i. 23. 1); tristis sucros tardumque saporem ii. 126, added / (h. iv. 4. 2); and the frequent expressions such as "sweet honey," "sweet water," etc.

Touch: glacies . . . frigida iii. 298 / ii. 1. 23, etc.

Pages 56-57, Sound.--Note quassante siliqua i. 74 / (i. 23, 3); glandemque sues fregere sub ulmis ii. 72 / (i. 40. 5); strepitus iii. 79 / (ii. 7. 6); et cantu querulae rumpent arbusta cicadae iii. 328, added; litora alcyonem resonant, acalanthida dum iiii. 338, added; aut ubi concava pulsu Saxa sonant vocisque offensa resultat imago iv. 49-50, added / (iii. 16. 12 & 37); tinitusque cie et Matris quate cymbala circum 64 / (iii. 16. 30, 7); iv. 67-81 describes the sound of the bees, and at iv. 72, the added auditur emphasizes this sound element, as it does at iv. 260, and elsewhere.

Page 57, Smell.--Note: olentia late iv. 30, added / (iii. 16. 13); graviter spirantis copia iv. 31, added / (iii. 16. 12, 13); odor . . . gravis iv. 49 / τῶν δυσωδῶσιν ὀσμάτ' 626 a 27; notas . . . auras iii. 251 / ὀσμάτ' 572 a 11; late iactaret odorem ii. 132 / (h. iv. 4. 2).

Page 57, Appeal to human experience.--See donkey and driver i. 273-74 / (ii. 6. 5); coniunx i. 294; quidam . . . pervigilat i. 291, vs. Varro's impersonal expressions, i. 36; hic (workman) ii. 23, added (i. 40. 4); putator ii. 28, added; more patrum iii. 177; pastores Libyae iii. 339, added / (ii. 2. 9); armentarius Afer iii. 344, added / (ii. 2. 9); multi . . . prohibent iii. 398, where multi gives an extra touch not felt in simply citing a custom as does Va. in ii. 2. 15, 6. 4; iii. 401-2: While Va. gives details of the cheese-making, Vergil spares us this and adds this human touch on the herdsman's selling his cheese, or salting it and putting it away for the winter / (ii. 11. 4 & 6). (Reversing the usual thing, Vergil omits, at iv. 36, the keeper, mellarius, whom Va. brings in, iii. 16. 17.) Note the human application added at iv. 251 / (iii. 16. 20).

Theophrastus: putator ii. 28 / (h. ii. 1. 3); agricolae ii. 36 / (h. ii. 2. 12); pocula . . . saevae infecere novercae 128 / τούτῃ h. iv. 4. 2; acer . . . rusticus ii. 405-6, added /

(c. iii. 15. 1); agricolae ii. 445, added / h. iv. 5. 5, 6, 2; v. 7. 3, 5, 1.

Aristotle: pastores iii. 281, added / 572 a 21-24, 27-29, 29-30; cui lactis amor iii. 394, added / 596 a 20-22.

Page 57, Intrusion of the poet.--This is not uncommon in the prose writers, but comparison shows that the restraint with which Vergil indulges in this formula makes all the difference between an interesting, vitalizing device and a didactic reiteration. Note the following examples of this in Vergil: vidi i. 193, 197 / i. 52. 1; iubeo iii. 300, iubeto iii. 329 (vs. ad bibendum adpellunt ii. 2. 11) / ii. 3. 6 dico; hae . . . nobis . . . tuendae iii. 305, added / ii. 3. 6; nec mihi displiceat iii. 56, added / ii. 5. 8; prosequar iii. 340 / (ii. 2. 9); contemplator iv. 61, added / iii. 16. 27; canerem iv. 119, added / i. 16. 3; i. 7. 6; memini me iv. 125 / cf. dico, audiui iii. 16. 10; suadebo iv. 264, added / iii. 16. 36. Also vidi i. 193, added / h. ii. 4. 2; ausim ii. 289, added / (c. iii. 4. 2).

Page 58, Reader enlisted.--Compare sustuleris i. 76 / opus esse i. 42. 1; curam aspernabere i. 228 / serendum i. 32. 2; nec tibi cura . . . fuerit iii. 404 / relinquitur . . . de quadripedibus quod ad canes attinet ii. 9. 1 (but cf. attinet maxime ad nos ii. 9. 1); horrebis iii. 408, agitabis 409, venabere 410, turbabis 412. Also avertes iii. 320 / a . . . curandum ii. 2. 17; conice iv. 26 / iaceant iii. 16. 27; tu . . . ungue iv. 45-46 / oblinunt iii. 16. 16; tu . . . asperge iv. 62, added / iii. 16. 23, 30, 31, but cf. conspergunt iii. 16. 14; aspergi and sunt asparsae iii. 16. 35; poteris cognoscere iii. 16. 20; incoque iv. 279 / decoquunt, iii. 16. 28; adpone iv. 280 / adponunt, ponunt ad alvos iii. 16. 28. Note also, tu (added) iii. 73 (ii. 7. 4), iii. 163 (i. 20. 3); tibi (added) ii. 190 (i. 54. 3), iv. 33 (iii. 15. 17). Also tibi, added, ii. 298 / (c. iii. 7. 9).

Cf. Aristotle: nonne vides iii. 250, added / (572 b 10ff.); ubi . . . revocaveris iv. 88 / (625 a 28-29); mirabere iv. 197, added / (553 a 17 f.); relines iv. 229 / (ἐξαίρετον 623 b 15 f.).

